101 HOME USES OF HYDROGEN PEROXIDE

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Preface

Before we go diving off in to the deep end of the pool...

Just wanted to share a few thoughts with you before you find yourself sailing along in the bright new world of hydrogen peroxide...

First.

Hydrogen peroxide is what it is because it is what it is. Does that sound redundant? Actually, it's not. H_2O_2, as it's chemically named, is a chemical compound.

It is created in our atmosphere as a natural process, as well as in our bodies, in plants and generally... all over the place.

But we humans have this capacity to take simple chemical compounds like hydrogen peroxide... and make them stronger.

So all the great advice in this ebook IS great. Use it. Apply it. And experiment… a little.

But don't forget that you're dealing with a very powerful organic chemical compound that, in high concentrations, is an oxidizer. That means it burns.

At concentrations higher than 5% it can cause permanent eye damage. So don't put it in your eye!

And respect the fact that it is strong in human created dosages. 35% hydrogen peroxide kills all microbial and bacteria life on contact in less than 20 seconds.

If you're battling the creeping crud of all mildews… that's terrific! If you're not careful how you handle it, that's not.

Common sense is, unfortunately, not a salable commodity. So, just please, don't be illogical. Think science.

If you find yourself getting sloppy in your conduct, just remember...
You may be playing with 8%, 10%, even 35% hydrogen peroxide...

Those space shuttles are launching off the pure stuff... it IS that powerful.

A little respect is not so much to ask.

1. Over 3%: Wear gloves. Don't inhale mist. Ventilate area for large applications.
2. Even at 3%: Don't inhale the mist, ventilate, let it work without working on you.
3. Any applications of eardrops, etc. never use stronger than 3% solutions.

It's like all great and good things in life. Some is wonderful, and applied correctly it gives nothing but joy. Too much makes trouble. No one thing is good all the time.

So, use hydrogen peroxide with an awareness and respect of its power, and it will serve you very very well.

Now that we've got that out of the way...

Let's talk about what is right, good and sensible about hydrogen peroxide.

You see, that's where all the good stuff is.

Whether you are working with liquid hydrogen peroxide or sodium percarbonate dry compounds, the results and the outcomes are the same:

1. The oxidizing power will work when you apply it.
2. The same power will break down in water (any flow of water) almost instantly.
3. The end result of all actions of hydrogen peroxide will be water and oxygen, non-lethal, non polluting, non invasive, and not proliferating of toxic by-products in the environment.

Even if you really mess up and pour 35% hydrogen peroxide on your foot instead of into the hot tub... Running water will mitigate any problem without long-term ill effects.

The inverse of the nuclear age, hydrogen peroxide, even if in concentrated form, once exposed to the natural environment will quickly, readily and reliably break down to common elements, which are non-toxic and life sustaining rather than life threatening.

If you want more of the details check the Appendices for reference materials.

Keeping Your Home Clean, Beautiful, and Healthy

Introduction

The wonders of cleaning and personal care with hydrogen peroxide are as surprising for their variety as for their efficacy. A naturally occurring compound, hydrogen peroxide is formed within the cell structures of plants and animals, in the earth's atmosphere and in the waters that cover the earth.

Formed in the upper atmosphere when water and ozone combine to produce oxygen and hydrogen peroxide, its true chemical role in the mechanism of climate and rainfall is far from being clearly understood even today.

As a commercial chemical it was first used in the restoration of famous paintings to remove sulphur build up without damage to the paint or canvas beneath. It has been long favored in textiles pulping, fabric production and bleaching for its ability to whiten with minimal damage to fiber structures, and has been used as an environmentally sustainable replacement for chlorine bleaching in many paper and pulp operations around the world.

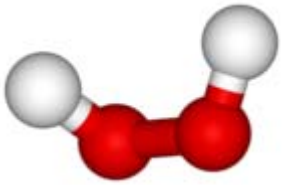
Hydrogen peroxide is manufactured, stored and shipped all over the world in vast quantities, yet its application as a simple and effective household chemical cleaning compound has never really come of age.

Clearly, hydrogen peroxide is a healthy, environmentally clean and sound approach to not only clean bleaching of paper pulp; cleaning of hydroponics and water garden waters, aquaculture and other industries, but is equally useful around the home.

Perhaps the first thing you'll notice once you begin using hydrogen peroxide for your household needs is a distinct lack of odor. No smells of perfumes, chlorine, cleaners, pet, or bathroom odors… Instead there will be a simple clean sweetness of additional oxygen and fresh clean air.

What else can this little wonder couple do around the home? The easiest way to understand the vast array of practical applications of hydrogen peroxide is to take a closer look at what it is, and how it interacts with the rest of the world.

Hydrogen Peroxide: H_2O_2



Hydrogen (H) and Oxygen (O) - building blocks of the natural world. What makes hydrogen peroxide preferable to Chlorine, Ammonia, Window Cleaner, Oven Cleaner, Pine Cleaner, Branded Disinfectants, Toilet Bowl Cleaners, and Chemical Abrasives.

Unlike chlorine, ammonia and other toxic cleaning products, hydrogen peroxide breaks down into water and oxygen. The two elements that make up hydrogen peroxide (hydrogen and oxygen) in their most common form make water (H_2O).

Hydrogen peroxide was discovered by French Chemist Louis-Jacques Thenard in 1818. Coining the phrase "eau oxygenee" to describe its properties, Thenard believed it to be an oxygenated form of oxygen.

Hydrogen peroxide is produced naturally within plant biomass and plays diverse and pivotal roles within the plant kingdom. It is present in trace amounts in rain, water, and snow. It is also present in higher concentrations in such natural healing springs as Lourdes, Fatima and St. Anne's.

Oxidation:

An oxidizing agent is a chemical compound that readily transfers oxygen atoms. Hydrogen peroxide is a common oxidizing agent. It breaks down readily in water, becoming water and oxygen as the oxidizing agent releases its extra oxygen atom. This action of releasing the extra oxygen atom bound in the hydrogen peroxide is what is defined as oxidation.

Without water to dilute the effect, highly concentrated formulas of hydrogen peroxide are volatile, unstable, caustic and downright powerful.

It is this powerful action that makes hydrogen peroxide an exceptional rocket and space ship propellant. The simple power of oxidation when concentrated becomes capable of creating enough energy to lift spaceships off of launch pads and into outer space.

Simple yet effective, the actions of hydrogen peroxide in household concentrations (3 to 9 percent by volume in a distilled water solution) are also oxidative, and therefore, solutions of dry hydrogen peroxide once mixed with water become reactive upon contact with the water, and will lose their potency after approximately five hours. Liquid solutions will maintain their potency so long as they are stored properly. Both dry and liquid forms of hydrogen peroxide offer a powerful, effective, non-invasive and environmentally clean household cleaner, disinfectant, odor eliminator and all around useful chemical compound.

Liquid household and cleaning dilutions range from 3 to approximately 9 percent. Released oxygen molecules act on the micro organic level to kill pathogens, molds fungi and anaerobic life forms. In this way, hydrogen peroxide oxidation could be said to be the least toxic form of antiseptic germicidal action.

This is not to say that hydrogen peroxide is not toxic and even fatal in higher concentrations if ingested. Household strength solutions of hydrogen peroxide should kept out of reach of children, and should be stored away from sources of heat, moisture and direct sunlight. Gloves should be worn for direct applications. Should skin become sensitive if exposed to hydrogen peroxide, the solution is always to run copious amounts of water over the affected area.

Hydrogen peroxide breaks down in UV light, when exposed to air (open container) or when mixed with water. Storage of hydrogen peroxide should be in a cool, dark location in containers which block UV light. Because hydrogen peroxide is volatile, tightly capped bottles should be loosened periodically to allow the release of built up oxygen. Under these storage conditions, hydrogen peroxide will lose its potency only very slowly, at a rate of less than 10 percent per year.

All commercially available hydrogen peroxide is date stamped for freshness. Over time hydrogen peroxide will lose its potency, and old containers of hydrogen peroxide should be emptied and recycled.

Hydrogen Peroxide Liquid and Dry Formulations

There are several forms of hydrogen peroxide available for household use. For many applications simple 3 percent hydrogen peroxide solution (same strength as found at the local drug or grocery store) will work perfectly. Particularly effective in kitchen disinfection, food grade hydrogen peroxide at 3 percent solution is the preferred choice for most applications where humans or their food come in contact with the surfaces being cleaned.

For some cleaning jobs that require more powerful deep cleaning and stain removing action, the most practical and reliable solution is to use a sodium percarbonate solution. Sodium percarbonate, also known as "dry hydrogen peroxide" is a mixture of soda ash, and hydrogen peroxide that is readily available from many environmentally friendly cleaning companies, from agricultural suppliers and directly from chemical suppliers.

For both food grade hydrogen peroxide (as the commercial 35 percent solution) and quantities of sodium percarbonate larger than two pounds, federal regulations require HazMat packaging standards for shipping. For this reason it is easier and less expensive to purchase food grade hydrogen peroxide solutions at 3, 4.5, 6 or 9 percent solutions when buying online or where shipping will be required and to purchase sodium percarbonate in 2 lb bucket containers. (You may purchase as many 2 lb bucket containers of sodium percarbonate as you need and have them shipped together and still not be liable for HazMat shipping containers. Hazmat shipping containers are only required for bulk packaging of sodium percarbonate (over 2 lb container size).

If you're having trouble finding sodium percarbonate or do not want to purchase it online, most agricultural and garden supply centers will either carry it, or can easily order it for you. Agricultural grade sodium percarbonate does not differ from commercial cleaning grades and all sodium percarbonate remixes to an approximate 27 percent hydrogen peroxide solution when water is added in equal amounts.

If you're thinking these are exotic or new materials that you should know more about before using, you may be surprised to know that sodium percarbonate in dilute mix with soda ash to reduce its strength to a 78 percent sodium percarbonate dry solid has been used in laundry and household cleaning for many years.

Perhaps you have heard of a rather popular "oxygen bleaching product" which entered the home cleaning market a few years ago: "Oxyclean". Oxyclean is nothing more than sodium percarbonate and soda ash in this 78 percent strength formulation!

Hydrogen peroxide, whether in its dry sodium percarbonate form or in a liquid solution, breaks down into non-toxic, environmentally friendly components: water, oxygen, and, in the case of sodium percarbonate, soda ash.

Liquid hydrogen peroxide is available in a variety of grades and dilutions, ranging from 3% drug store solutions all the way to 90% oxygenizers for rocket fuels.

Using Hydrogen Peroxide

We've been taught by the chemical industry to expect instant results. The price of these instant results is often toxic chemical corrosives, acids or worse. When using sodium percarbonate or liquid hydrogen peroxide solutions, it may be necessary to allow the solutions to 'work" actively for a few minutes.

When dealing with serious staining, either of concrete, carpeting, surfaces or clothing, a pre-soak period or activation time may be required. Throughout the e-book we have provided specific instructions including necessary activation time if needed for total effectiveness.

In some cases, adding a mild surfactant (a mild hand dishwashing liquid is an excellent choice) will assist the hydrogen peroxide in removing the stain. Often this is simply to help the hydrogen peroxide adhere to the stained surface in question, and/or to create a slight viscosity or "slipperiness" to the cleaning solution which aids in application.

In general, hydrogen peroxide can be safely and effectively combined with baking soda (bicarbonate of soda) to form an excellent cleaning and deep deodorizing paste. A few drops of liquid dish soap will add fragrance if desired, and viscosity.

Hydrogen peroxide should not be mixed with toxic commercial cleaners. It is a powerful oxidizing agent on its own, and without knowledge of the potential chemical reactions of toxic cleaning agents to oxidizers, it is unwise to experiment. Because hydrogen peroxide is such an effective anti-microbial, anti-fungal and anti-bacterial agent, no other chemical agents are required to accomplish proper cleaning.

The second thing about hydrogen peroxide to understand is that it is caustic at higher concentrations. The applications therefore specify which concentration of hydrogen peroxide is best suited for each particular purpose.

The human tendency to think "stronger is better" could lead to inadvertent bleaching or lightening of fabrics or other when working with hydrogen peroxide. 35 percent hydrogen peroxide solution is not suitable for direct application in any cleaning process, as it can cause oxidizing, or burning (quite literally burning holes through fabrics, for instance). A 3 to 4 percent solution of liquid hydrogen peroxide is perfectly effective for many household cleaning jobs; and higher concentrations are only advised for certain, specific tasks.

Rather than assuming that a stronger concentration is needed, always repeat a single application at the same concentration in order to achieve the desired result.

Amazingly, once you learn this approach, you will find that hydrogen peroxide can do almost anything around your home when it comes to cleaning, and leaves a wonderful, fresh and really and truly clean home in its wake.

Finally, hydrogen peroxide is a chemical compound. It is a cleaning agent, among many other things. So wear your gloves when you are getting down and dirty and digging into those chores. Your skin will not be harmed by hydrogen peroxide, but prolonged exposure can cause itching and dry the skin. Besides, who wants their bare hands in whatever is being cleaned up? For simple counter top wipe downs gloves are not necessary, but if you're headed into the boys' bathroom with a toilet brush and scrubbing tools, by all means, don the gloves!

All hydrogen peroxide should be clearly marked as to their dilution ratios. Most common dilutions of 3 percent are completely adequate for most household cleaning jobs, and in fact, this is the standard dilution we use throughout our home. In many cases, using sodium percarbonate diluted to regular cleaning strength will work quite well for more difficult to clean areas, and a stronger concentration is recommended for removing black mold, feces, urine and other odor causing organic stains. Specific dilution ratios are included in each section of the ebook.

We have included a handy reference guide and cleaning formulations table in the back of the ebook. We recommend that you print this up and keep it where it is easily accessible until you have become familiar with using hydrogen peroxide for your household cleaning.

The Color Code System in This Ebook

Each of the 101 household uses listed in the pages to follow is comprised of a title and color chart for quick and easy reference. The color chart correlates to the table provided in the Appendix for easy reference.

Home Use X Cleaner Strength

Examples:

General Carpet Cleaning Regular Strength
Hair Bleaching Double Strength
Wood Refinishing Extra Strenth

The formulations for these three basic cleaning strengths are:

Regular Strength	3% liquid H_2O_2 or 1 oz (1/4 c) Sodium Percarbonate to 1 quart water (100 to 150 F)
Double Strength	4.5 % liquid H_2O_2 or 2 oz. (1/2 c) Sodium Percarbonate to 1 quart water (100 to 150 F)
Extra Strength	6 – 9% liquid H_2O_2 or 3 oz. (3/4 c) Sodium Percarbonate to 1 quart water (100 to 150F)

Sodium Percarbonate

Sodium Percabonate solutions will remain active for 5 to 6 hours, after which they should be discarded. Unused material may be poured down the drain. It will actually help clean and deodorize your disposal or toilet. Sodium percarbonate solutions are most effective when mixed and used in warm to hot solutions (100 to 150 F).

Mixing Ratio:

- General Cleaning:
  Mix 4 fl oz of percarbonate in a gallon of warm or hot water.
  (1 fl oz per quart).
- Heavy Cleaning: Mix 8 fl oz of Percarbonate in a gallon of warm or hot water. (2 fl oz per qaurt)
- Soaks: Mix 2 to 8 fl oz Percarbonate in a gallon of hot water.
- Paste: Mix 1 to 2 ounces of Percarbonate with just enough water to make a paste.

In those cases when using an extra strength formulation with Sodium Percarbonate you will mix a paste of the powder and warm/hot water to apply

directly to severe soiling or stain problems. Be sure to wear gloves if handling the paste directly. Mix the paste in a small plastic, glass or ceramic container with an old wooden spoon, painter's stick or other non-metallic utensil.

Note that the liquid H_2O_2 solutions are not listed as proportionally doubled in strength. This is because 6% and higher solutions can and will bleach some surfaces, fabrics and other materials. Always pre test before using liquid H_2O_2 in concentrations higher than 4.5 percent.

Indoor Uses

General Cleaning

Hydrogen peroxide is an excellent all around general cleaning solution that is safe on most surfaces. A short list includes most interior surfaces, and many exteriors surfaces as well. From walls to windows, wood to patio concrete, laundry and carpet stains and lots in between, you'll find hydrogen peroxide is versatile and effective as a multi purpose household cleaner. It can remove staining, mildew, mold and fungi, all without leaving harsh odors or chemical residue in its wake.

Most notably, hydrogen peroxide is excellent at cleaning any organic stains, spills or spots from dirt to blood, foods, grass and plant stains and even urine, vomit or fecal stains. In general, use it straight for stains and spots or mix it with baking soda for stain and odor removal.

1. General Carpet Cleaning Regular Strength

For general carpet cleaning to remove odors and bring a fresh scent to the carpet use 1 oz Sodium Percarbonate or 4 oz 3% hydrogen peroxide added per gallon to the cleaning solution of carpet shampooers and/or steam cleaners.

2. Spot Carpet Stain Removal Regular Strength or Double Strength

Remove organic stains such as grass, food, dirt or mud, tomato sauce chocolate, wine or blood. Be sure to remove all actual matter with a brush or vacuum before starting.

Spray the stained area thoroughly with 3% hydrogen peroxide and let stand a minute or two, then spray and brush or scrub with a sponge if the carpet has any nap to it to make sure the hydrogen peroxide reaches the full length of the carpet fibers. Blot with a clean cloth or towel and repeat if needed.

In many cases this will be all that is required and the stain will be gone after the first application.

For deep or seriously stubborn stains, a second application of sodium percarbonate made into a paste and left to stand on the stained area for up to 5 hours may be necessary. In this case, test for color fastness of the carpet in an inconspicuous area first.

3. Pet Odors and Stains Regular Strength or Double Strength

Sometimes worse than the staining, is the odor pets leave behind, particularly cats. Yuck. Hydrogen peroxide is an excellent odor eliminator and works particularly well when mixed with baking soda on tough odors.

Mix a paste of 3 percent hydrogen peroxide and baking soda. The paste will thicken as it stands, and will re-liquefy as you stir it. Simply stir it up a bit so it's not thickened so much as to not be spreadable, and spread it over the area to be treated. Thoroughly coat the area and rub or brush the mixture into the carpet, upholstery or stained item. Let stand for five to ten minutes. In severe cases it is advisable to let stand until nearly dry, which, depending on climate conditions, can take a couple of hours.

For less severe odor problems, rinse and blot after 10 or 15 minutes with a damp cloth or sponge, continue to rinse and blot until all the baking soda residue is removed. If letting stand until dry, a vacuum cleaner may be used to remove the dry powder.

4. Carpet Underlayment – Especially after Water Damage Regular Strength or Double Strength

If you have water damage that results in wet carpeting which needs to be dried out, it is a very good idea to lift up the carpet and dry it separately from the underlayment or foam padding which is typically installed under carpeting.

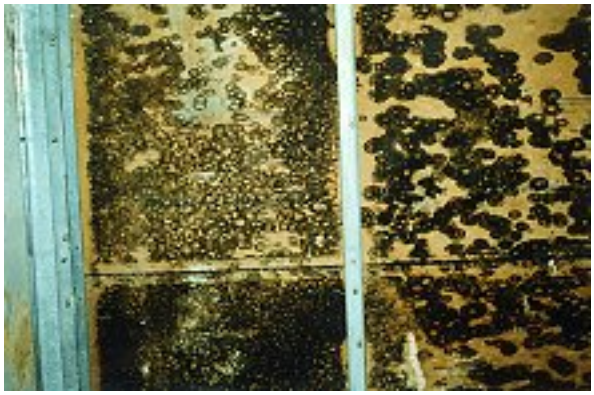
Whether you actually remove the entire carpet to dry out of doors, or simply lift it up where it is wet, it is a great idea to spray down the entire underlayment, or as much of it as you can get to, with 3% liquid hydrogen peroxide. This will kill the germs and bacteria that will cause the foam to become foul over time and also will kill the mold and mildew spores that will otherwise form beneath the carpet if moisture is not completely removed.

This is also worth considering for those areas where pets have stained repeatedly over time. Finding the nearest anchoring seam in the edge of the carpet and actually applying hydrogen peroxide directly to the underlayment will help prevent the return of staining moisture, bacteria and molds.

5. Black Mold Removal Regular Strength

While this topic could take an entire ebook to cover, we'll touch on a few things that are important to know about black mold removal here.

Stachybotrys Chartarum (Toxic Black Mold) is a greenish black fungus found worldwide. It colonizes particularly well in high cellulose material, such as straw, hay, wet leaves, dry wall, carpet, wallpaper, fiberboard, ceiling tiles, and thermal insulation.



The fungus (mold), before drying, is wet and slightly slimy to the touch. There are about 15 species of Stachybotrys that can be found worldwide. This toxic mold grows in areas where the relative humidity is above 55%. Breathing in even dried mold of this kind causes many different types of respiratory problems.

First, never ever attempt to remove black mold in a dry environment. The mold will send spores throughout the entire household if it is disturbed when it is dry to the touch. Always wet the moldy area down with liquid hydrogen peroxide spray (3 percent) or a regular strength sodium percarbonate solution before attempting to do any work at all about it.

Second, always close off all ventilation to the area that has mold. In basements you may need to put up plastic drop cloth sheeting to enclose the area, but do this before disturbing the mold or the mold will be spread further throughout the house rather than removed by your efforts.

In bathrooms, you can shut off all ventilation system, close all windows and place rolled up towels at the bottom of the door and use plastic tape to seal the top of the door. Do this before beginning to remove the mold.

Thoroughly saturate the mold infested area with the 3 percent hydrogen peroxide spray or sodium percarbonate solution. Scrub gently with a non-metallic brush or sponge, and continue to apply the spray or cleaning solution as you work.

Always wear a mask when removing toxic black mold. If you are unsure if the mold you are removing is toxic black mold, do some research before you begin to determine for certain what you are dealing with.

6. Children's Play Areas Regular Strength

Rather than using chemical disinfectant wipes or chlorine around children, use a spray bottle of 3 percent hydrogen peroxide. Simply spray and then wipe to clean toys, play tables, and other surfaces where children play.

7. Indoor Fountains Regular Strength

Keep indoor fountains smelling sweet and fresh by adding a few ounces of 3 percent hydrogen peroxide periodically to the water. This will sterilize the fountain, kill algae and add oxygen to the air in the room as the fountain runs.

8. Humidifiers Regular Strength

Add 2 to 3 ounces of 3 percent hydrogen peroxide to humidifier reservoirs to keep mold from growing in the tank. You can add hydrogen peroxide each time you refill the tanks, or just periodically.

Between uses, or in seasons where the humidifier is not in use, keep the reservoirs dry after proper cleaning with a sodium percarbonate solution or regular 3 percent hydrogen peroxide rinse to keep bacteria, molds, mildew or fungi from forming in the reservoir when the humidifier is not in use.

9. Walls Regular Strength

Walls can be washed in a regular sodium percarbonate solution of 1 ounce sodium percarbonate to one quart warm to hot water, or sprayed directly with 3 percent hydrogen peroxide and wiped clean.

Either way, the walls will be brighter, clean, and free of grease, dirt, mold and mildew with a simple application and wipe clean. High traffic areas such as hall light switches will look freshly painted after the layers of dirt and fingerprints wipe clean away.

10. Windows Regular Strength

Your windows will have a new bright clean shine and sparkle with no streaks when you replace your spray bottle of window cleaner with a bottle of 3 percent hydrogen peroxide solution. Use it just as you would any spray window cleaner: spray the window and then wipe clean with a clean cloth or paper towel. No smearing, streaking or blurring. Your glass will be clean and clear without ammonia-D, ethyl benzoic or any other harsh chemicals, which can aggravate asthma, interfere with breathing, and cause major organ damage over long term exposure.

11. Wall Degreaser before Painting Regular Strength

Are you getting ready to paint the interior of your house? Make sure you don't have to repaint, and that the first coat goes on perfectly by wiping all the surfaces to be painted with a cloth dampened with hydrogen peroxide before you start painting.

This will remove any grease, fingerprints or other surface matter that prevents the paint from adhering to a clean surface.

Kitchen

The Kitchen uses of hydrogen peroxide can replace a whole shelf of cleaners in your closet. From general cleaning, produce, egg, cheese and meat washing to scouring and surface cleaning, hydrogen peroxide can literally do it all.

In 1997 food scientist Susan Sumner, at the Virginia Polytechnic Institute and State University, developed a chlorine-free home regimen for disinfection that has proved to be very versatile; using simple spray bottles of hydrogen peroxide at 3% solution and white vinegar. Her studies showed that this combination not only killed all microbes associated with contaminated red meat, but also all microbes on metal, wood and plastic kitchen surfaces. The same formula kills microbes found on the foods themselves.

Spray vegetables first with a 3% hydrogen peroxide solution and then follow with a white vinegar spray. In fact, as Ms. Summer found, the order of which solution is sprayed first does not matter.

The solutions represent an adaptation of a chlorine free disinfection scheme Ms. Summer had been working on for red meat, and which turned out to be effective for decontaminating carcasses. In the course of her studies, Sumner found that **vegetables coming from the garden or farm not only tend to bear far more germs than red meat does, but they also hold onto germs more tenaciously.**

While most germs that show up on produce come from the soil and are benign, reports of Shigella on cantaloupe and Salmonella on raw vegetables prompted Ms. Summer to develop **a bactericidal treatment for restaurants** and other purveyors of salads.

In her tests, she deliberately contaminated clean fruits and vegetables with **Salmonella, Shigella, or E. coli O157:H7**, all capable of inducing gut-wrenching gastroenteritis. On its own, the hydrogen peroxide was fairly effective against all three germs, she found. But the best results came from pairing the two**. "If the acetic acid (vinegar) got rid of 100 organisms, the hydrogen peroxide would get rid of 10,000, and the two together would get rid of 100,000."**

In a report by Online Science News Ms. Summer was quoted as saying: "What I really liked about this treatment is that every [microbe] that drips off is killed." That means you are not just transferring disease-causing contamination from your food to the sink, drain, or cutting board. Speaking of which, she notes that the paired sprays work well in sanitizing counters and other food preparation surfaces, including wood cutting boards.

What about taste? The peroxide left no lingering flavor, and the vinegar, when applied to the skins of such vegetables as tomatoes and peppers, was indictable; it was possible to discern the slight taste of vinegar on lettuce leaves. However, a quick fresh water rinse followed by gentle shaking or run through a salad spinner easily removes any lingering taste. For salads eventually dressed in vinaigrette, the simple rinsing is not even necessary.

12. Fruit and Vegetable Bath

Regular Strength

Pesticides, bacteria, pathogens, chemicals, dirt and general grime can all be removed safely and easily from all our fruits and vegetables with a simple veggie bath. Fill the clean kitchen sink ½ full with water. For most of us that's about 4 gallons of water. If your sink is unusually large or small, simply use a milk container and measure how many gallons equals one half of your sink in water.)

Add ½ oz of 35% hydrogen peroxide or 5 oz of 3% hydrogen peroxide. Place fruits and vegetables in the "bath" according to their type:

lettuces and leaf veggies 15 minutes; apples, cucumbers, celeries, squashes 30 minutes. Rinse, dry, and refrigerate after the bath. If I'm in a hurry when I get home, I simply spray them all down with 3% solution followed by a spray of white vinegar, set to air dry and then refrigerate.

When returning open heads of lettuce or leafy greens to the fridge, a quick spray with 3% hydrogen peroxide keeps them fresh and green, preventing brown rot on the leaves.

13. Salad Spray

Regular Strength

When preparing salads in advance of a meal, mix all ingredients except the dressing, toss and spritz gently with 3% hydrogen peroxide before covering and refrigerating. The salad will be fresh and crisp at the table and the only thing you'll have added to the mix is a little oxygen and fresh water!

(Note: a "gentle spritz" is a **few sprays at most**, do not saturate the salad as your aim is merely to moisten the air exposed surface of the salad with hydrogen peroxide and provide that oxygen barrier that keeps the salad fresh!)

14. Fresh Sprout Growers

Regular Strength

Do you grow sprouts of alfalfa, broccoli, sunflower or other greens for your self? Maybe you have one of those nice little mini sprout green houses. You know, the ones usually made of clear plastic with several layers, or shelves, which you sprinkle with seed and then water? Or even if you simply use your own little tray and nothing fancy… Here's a way to keep your sprouts extra healthy, make them healthier for you to eat AND avoid any possible air borne or water borne contamination, mold or mildew that can sometimes grow on fresh sprouts.

Simply add one teaspoon of 3% hydrogen peroxide solution to each 8 ounces of water you use to water the sprouts. You can also spray them directly with this same solution (one teaspoon to one cup water). Remember that these sprouts are for your consumption. If you don't have filtered household water, use drinking or distilled water for your watering needs for them. After all, they take that water and turn it into what you eat!

15. Prevent Mold on Strawberries

Regular Strength

Nothing ruins a great batch of strawberries faster than that pesky grey greenish mold that creeps up from the bottom where you don't see it and makes strawberries inedible. Yuck.

Don't let it ruin your strawberries. From now on, give those strawberries two things right away when you get them home: a quick swishing through a hydrogen peroxide bath and then a nice airy spot to dry. If you are in a rush, pat them dry with a clean cloth or paper towel. Then put them away. They'll keep better; taste sweeter and best of all, no yucky mold will grow and ruin them.

(Of course, if you leave them for weeks at a time, there is no telling what will eventually grow on them; I am only speaking here of using them within a few days to a week. This is not a long-term science experiment! Although perhaps, now that I've thought of that I'll do a test and tell you just how long I can get them to last… ☺)

16. Meat Sanitizer/Disinfectant

Regular Strength

Meat is contaminated by handling. This is why in the large slaughterhouses human hands never come in contact with the meat. However, in many smaller grocers and meat shops this is not the case. Because the major cause of meat contamination is handling, it is very important to wash your hands thoroughly both before and after handling any raw meats.

Before you begin to work with your meat or poultry, spray your work surface with hydrogen peroxide, followed by a spray of white vinegar. Then spray down the meat or poultry itself. Let stand a few minutes before patting dry with paper towel and beginning preparation for cooking.

Meats should be kept refrigerated before use, however, for best results meats should be allowed to reach room temperature before cooking. Simply follow the steps above an hour or two before you plan to cook the meats, cover lightly with clean plastic wrap or in a marinade container such as a Tupperware, and your meats will be tender, juicy and perfect without risk of contamination.

17. Marinade/Meat Tenderizer

Regular Strength

Hydrogen peroxide is an excellent meat tenderizer as well. For best results, spray the meats with a light misting of hydrogen peroxide early in the day and

let the meat rest in the refrigerator until an hour or two before you intend to use it.

Then season, prepare and grill, roast or cook as normal. You'll get rave reviews for your beautifully tender meats.

18. General Surface Cleaner Regular Strength

This leads us right to those surfaces you're working on. Clean them up with hydrogen peroxide and white vinegar and you won't be worrying about soap residues OR bacteria and you won't have to worry about the smells or tastes of cleaners in your food.

From cutting boards to counter tops, this powerful duo will ensure you have a clean sterile surface.

Counter tops, stovetops, even the walls are safely, effectively and easily cleaned with a simple one-two spray of white vinegar and hydrogen peroxide. If you have particularly stubborn cooked-on food or dried food on stove top or counter surfaces, simply spray and let sit a bit first. The solution will quickly begin to dissolve the food residue and it will easily wipe clean after only a few minutes.

You can always tell when the hydrogen peroxide is working, because you can see it and hear it, so take a look and listen, and if it's still stuck (I doubt it), spray again and wait a moment.

19. Floor Washing Regular Strength

Speaking of surfaces, don't stop at the counters when it comes to using hydrogen peroxide. I use it all the time to wash the kitchen floor. The great thing is that it works just like a "spray and mop" solution… just spray, and mop! It leaves your floors really clean, so you don't have that sticky soapy after-effect that the commercial spray and mop products leave behind. Plus, it disinfects as it goes, so your kitchen floor could actually be clean enough to eat off of! Just kidding, don't be putting food on your kitchen floor, really!

20. Degreaser Regular Strength or Double Strength

Hydrogen peroxide and white vinegar makes the best degreaser I've ever used. Spray greasy surfaces directly with the vinegar, then spray the hydrogen peroxide and, depending how thick the grease is, wipe immediately or wait a few minutes to let the peroxide do its work. To clean the stove exhaust hood, place newspaper or paper towel below the hood on the stove or counters to catch the grease as it runs off the hood. Spray down thoroughly, then wipe clean.

21. General Disinfectant/Sterilizer/Germicide Regular Strength

Cutting boards, knives and surfaces where you prepare raw meats, vegetables and other foods can be kept bacteria free with simplicity using your hydrogen peroxide and vinegar spray bottles.

Spray and then wipe down the surfaces after use to avoid spreading the bacteria through the kitchen. Particularly when preparing raw meats and vegetables for cooking, it is important to remove the packaging, any meat drippings and other potential bacteria sources right away.

Because vinegar and hydrogen peroxide kill all microbes and bacteria that can collect in any food area, it's a good idea to use them regularly in your entire kitchen cleaning. You don't have to worry about chemicals, toxic cleansers or soap residue and your kitchen will be fresh and clean all the time.

22. Coffee Maker Cleaning Regular Strength

Do you use a coffee maker for your daily cup of brew? It is surely a wonder of modern times to have a machine that can have that cup of coffee hot, ready and waiting for you when you awaken each morning. But cleaning those machines can be a real chore. Not cleaning the machine means the coffee starts to taste bitter or worse, and that is simply not an option. Instead of running cleaners through the coffee maker, simply fill the water chamber halfway with water; add vinegar to ¾ full and hydrogen peroxide to complete filling the container.

Then run the machine as usual, or if it has a cleaning cycle run it on that mode. Use a paper filter during the cleaning, even if your machine normally uses a mesh basket. You can fold a paper towel into the mesh basket if you don't keep paper filters around the house. That will catch the sludge that

comes through the machine when cleaning. After the mixture has run through the machine, wipe all the interior surfaces of the machine you can get to, to remove the built-up residues underneath the filter apparatus and in the filter compartment. Then simply run a few pots full of fresh clean water through the machine, and voila, your coffee will taste fresh and wonderful once more. Between cleanings, run a damp cloth or clean sponge in around and under the filtering apparatus occasionally to remove the build up of coffee residues.

Some people don't like to use vinegar when cleaning their coffee machines, complaining that the taste of the vinegar lingers. If that's you, then replace the cleaning solution above with 8 ounces hydrogen peroxide and ¼ cup baking soda. Place the hydrogen peroxide into the water reservoir first, add the baking soda and swish with a long handled wooden spoon or other utensil to completely dissolve the baking soda and proceed with the rest of the cleaning process. Both recipe will work very well, and you can even run the hydrogen peroxide baking soda solution back through the machine a second time for added cleaning.

Note: if your machine has a chlorine filter insert or floating filter for the water chamber, remove it before cleaning the machine.

23. Drain Cleaning — Regular Strength

Not only is hydrogen peroxide and sodium percarbonate great for your pipes (plumbing pipes that is), but also it's excellent for clearing drains, and keeping the septic system healthy.

For general drain clearing use a regular cleaning solution of sodium percarbonate and very hot water and pour the mixture, directly down the drain. Do not run water for at least a few hours, or if possible, overnight. For really clogged drains, make up an extra strength solution (3 to 4 ounces of sodium percarbonate per quart) and again use very hot water. Mix the solution for a minute or so and then pour directly down the drain.

To improve the health of septic systems, add one gallon of regular strength sodium percarbonate cleaning solution down your drainpipes every few months or as needed to maintain freshness and looseness of soil in the drainage field.

24. Dishwasher Additive (sanitize/germicidal) — Regular Strength

You can use sodium percarbonate directly in the dishwasher. You may add sal soda, soda ash or baking soda if desired; however it is not necessary. Add ½

oz. per dishwasher load along with 1/3 the normal amount of dishwashing soap for best results.

25. Refrigerator Cleaning Regular Strength

For many years we have been told to clean our refrigerators with chlorine bleach. This is definitely not a good idea. Chlorine bleach breaks down on contact with organic matter to form "Organochlorines" which are a new class of chemicals now being recognized as extremely persistent in the environment as well as being extremely toxic. Dioxin is just one of hundreds of these new chlorine compounds; some of which are now known to be thousands of times more carcinogenic than DDT. Never clean your refrigerator with chlorine bleach.

Achieving a fresh, clean and environmentally sound and healthy refrigerator starts with removing the contents of the fridge for a proper cleaning. Next, remove any removable shelving and drawers for individual cleaning at the kitchen sink. Spray the surfaces of the shelves and drawers with white vinegar and then follow with a spray of hydrogen peroxide and let drain into the sink. Scrub any stuck on food or debris off the surfaces with a scrubber sponge or brush, rinse and stand to air dry on a rack or towel dry with dish towels. Next, spray the entire interior with white vinegar followed by hydrogen peroxide. Be sure to spray down the walls and ceiling of the fridge as well as the shelves, as harmful molds, mildews and bacteria can form on these surfaces as well. Wipe clean with a sponge or clean rag.

Vegetable, fruit and meat or cheese drawers often get funky odors over time. In between whole refrigerator cleanings you can simply take them out, spray them down inside and out and let them stand in the fresh air while the peroxide does its work to get them fresh again. Then wipe down and replace. In the event of extremely strong odors, use a paste of baking soda and hydrogen peroxide to scrub the interiors of drawers and let stand 10 to 15 minutes before rinsing and wiping dry.

Note: One of the most common places black mold is found in modern homes is in the insulating strip that acts as an air seal and moisture barrier around refrigerator and freezer doors. Take the time to spray along the strip with hydrogen peroxide when doing regular refrigerator cleaning and slide a cloth or papertowel in the creases of the seal to wipe out the crud. Most times, if this has not been done consistently since the fridge was new, you'll get a dark black stain on the cloth or papertowel as you go. That's black mold. So make sure the area is well saturated before you wipe it down, and dispose of the cloth or papertowel in a sealed garbage bag when you are done.

26. Sink Bleaching

Double Strength or Extra Strength

For white porcelain sinks hydrogen peroxide is naturally brightening and whitening every time you use it in the sink. To get a super white bleaching, spray the sink with 6 or 9 percent solution and let stand overnight before rinsing. Using a 3% solution regularly will brighten the sink but for actual bleaching to occur you'll will need a higher concentration solution.

You can also mix a paste of sodium percarbonate and water to spread on the sink as you would a scouring powder. Let stand 10 minutes to several hours, and rinse clean.

27. Tupperware Stain Removal/Refreshing

Regular Strength

Is your Tupperware looking less than stellar? There is nothing like a stained and stinky Tupperware to turn you off from storing anything, let alone food you plan to eat later! Whether from spaghetti sauces, heavy garlic or onion based foods or strong staining spices and seasonings, Tupperware can become unsightly and stubborn to clean over time. To get rid of those stains and the smells they carry, soak your Tupperware in a hot sink of soapy water mixed with white vinegar and hydrogen peroxide. For instant cleaning, spraying hydrogen peroxide directly on the Tupperware also works very well. The Tupperware will look like new and feel and smell clean and ready to use.

The first time I tried this I'd been trying to get a large spaghetti sauce stained Tupperware clean using regular dishwashing liquid. It simply wasn't working. I grabbed my trusty spray bottle of hydrogen peroxide and sprayed down the Tupperware inside and out… and as I continued washing it instantly came completely clean. I was hooked.

Your Tupperware containers will last longer and never cause your food to taste "off" again.

Scouring powder for tough grime, cooked on foods etc. – mix one part baking soda with one part 3% hydrogen peroxide. Mix together to form a paste and cover the area to be cleaned with the paste. Let stand a few minutes, then wipe clean. For very stubborn stains you may have to repeat the application.

Glass and chrome appliances all clean up beautifully with straight hydrogen

peroxide 3% solution without leaving streaks, grease or residue behind. Mirrors and windows come clean fast and easy with hydrogen peroxide.

28. Plastic Utensils, Outdoor Ware (Cups, Plates, etc.) Regular Strength

Sterilize and clean outdoor plastic ware with a regular solution of sodium percarbonate. Simply wash the items in the sodium percarbonate cleaning solution, rinse, and dry. Clean, sterile and ready for the next use.

29. Kitchen Sponge Life Extension Regular Strength

Keep sponges and dishcloths fresh and clean by spritzing them with the same two sprays between uses. Sponges can be soaked in a cold water hydrogen peroxide and salt solution. Let soak overnight. In a bowl combine ½ cup hydrogen peroxide and ¼ cup salt. Swish to dissolve the salt, and place sponge directly in the mixture. Soak overnight and simply rinse and squeeze the sponge dry in the morning.

To use sodium percarbonate in place of liquid hydrogen peroxide, simply mix a regular cleaning solution (1 ounce to one quart water) and follow the same instructions above.

For between soakings, a good spray of 3 percent hydrogen peroxide solution allowed to sit in the sponge a few minutes before rinsing out will also sterilize, prolong sponge life, and reduce unpleasant odors.

30. Replace Toxic Oven Cleaners Double Strength or Extra Strength

Oven cleaners are among the most toxic of all household cleaners. They contain volatile acids and toxic chemicals, which can damage the liver, kidneys and respiratory system. Asthma sufferers should never be exposed to the fumes from such toxic cleaners, but then, neither should anyone else.

To avoid the whole problem of toxic oven cleaners, the first step is to clean the oven regularly. It makes the job easier and is much less work than when an oven is allowed to build up spilled food and liquids which become carbonized by repeated headings over time. If your oven has a heat cycle cleaning unit,

you may only wish to clean using that system, but even after a heat cleaning, wiping the oven out with a clean cloth sprayed in 3% hydrogen peroxide solution will pick up all the remaining soot, dirt and ash from the heat cleaning cycle.

To clean the oven without a heat cleaning cycle, sprinkle baking soda (approximately ¼ to ½ inch deep) over the major spills encrusted on the oven floor and saturate with 3% hydrogen peroxide. Finally, spray the area with white vinegar. Let stand approximately 30 minutes, or up to 1 or 2 hours for more stubborn thicker masses.

If the solution has become dry while standing, see if it will simply brush clean with a cloth, often it will. If not, re-wet the area with hydrogen peroxide and then use a sturdy cleaning pad to remove the stain.

For extremely stubborn spills that have set for long periods you may have to repeat the application to remove all of the food debris.

31. Toaster Oven Cleaning — Regular Strength

Toaster oven cleaning is very much the same as regular oven cleaning. Unplug the appliance before starting clean up! Remove all the loose crumbs and debris from the bottom tray of the toaster oven. Apply baking soda and hydrogen peroxide to the stubborn stains, spray with white vinegar and let sit. Then wipe away for a clean finish.

To remove grease or sticky messes from the exterior of the toaster oven, simply spray with hydrogen peroxide and wipe clean. Works great on those little glass windows in the toaster oven door too!

32. Microwave Cleaning — Regular Strength

Microwave ovens come sparkling clean with hydrogen peroxide. It's a snap to do as well. Simply spray the entire interior surface, let sit a moment and then wipe clean with a clean sponge or cloth. You can remove the glass plate and stand and clean these the same way. Here too, the front glass and interior panels will come easily and quickly clean, free of grease, food particles and other debris.

Another great benefit of this cleaning method is that it eliminates all odors that accumulate in microwave ovens. In our house, the kids use the microwave for burritos and taquitos all the time and there's just something awful about going

to heat up a cup of coffee in a microwave that smells like a Mexican restaurant. A quick spray down and wipe of the interior of the microwave even when it doesn't need a full on cleaning will immediately eliminate all those odors.

33. Thermos Revival

Regular Strength

Whether you have children who take a lunch and thermos to school each day, a construction worker, truck driver or other professional on the go who loves that "hot cuppa" or even that chilled drink on hot summer days, thermoses can become exceedingly cruddy over time. Even regular cleaning just doesn't seem to get them really clean, and if they are used for coffee on a regular bases, they soon become fit for nothing else.

Cleaning a thermos and removing all the residual odors and tastes, especially of coffee, might seem impossible, but it's actually fairly simple once you know how to do it.

Start with boiling hot water and half fill the thermos. Add the juice of one large lemon to the boiling water already in the thermos, close and swish gently. Be careful with plastic or glass cylinder thermoses here, they can "squuir" hot water out the top even when closed sometimes, so swish very gently. Let stand at least one hour. Drain, and fill half way with 3% hydrogen peroxide. Add ¼ cup of baking soda. Reseal and shake gently. Let stand another fifteen minutes to a half hour. Shake gently again, swish unseal the top and dump. Rinse with hot water a few times and leave upside down and open to air dry. For particularly bad staining, you may need to repeat the process one time through.

When I first performed this operation on a Stanley stainless steel coffee thermos my husband had used for years to take surfing and on other outdoor adventures I was stunned and disgusted to see long strings of slime slide out of the thermos after the treatment. All those years I'd thought that thermos was clean it had been building a residue of dark coffee staining on the stainless steel interior. When it was clean the stainless steel sparkled up through the top at me as if it was brand new. Now that same thermos has a new life carrying soups and non coffee drinks for our college student son and doesn't taste like the years of coffee it carried in its previous life!

34. Ant Control

Regular Strength

Every year in late summer we have a fresh invasion of ants. Seems that when the weather has been dry long enough, they come in looking for water. The kitchen can be ant free one day and overrun the next.

The first thing to do is figure out where the ants are coming in to the house. In our case it always seems to be either the kitchen window over the sink or the back kitchen doorsill. Wherever it is, find the trail where it enters the house.

In the first step of this process, we put out a small dish (a tiny ramekin, or even an old tuna can works just fine). Place either a small amount of diet soda containing equal/aspartame or a small amount of water with a packet of equal diluted in the water. Set the dish along the ant trail close to where the ants are congregating. Usually this will be near the sink, or on a counter that leads to the sink.

Next, spray down the remaining ant trail indoors, as well as all surfaces where the ants have been, with 3% hydrogen peroxide and wipe clean. Use a sponge or rag, rinse and wipe until you have killed all the ants and the path of the ant trail is all wiped. The hydrogen peroxide will destroy the ants' scent trail and they will no longer continue to enter the house following the trail.

Within about 24 hours you will notice that any ants still remaining in the house will be in and around the dish of diet soda or sweetener and water, and most, if not all of them, will be dead. Remove the dish, and wipe the counters and surfaces clean once more with hydrogen peroxide.
The ants will not return. In our kitchen we keep a ceramic honey jar on the counter, in past years with bad ant infestation we had to keep the honey in the fridge to avoid re-infestation. Now that we've switched to this method, we never have to put the honey in the fridge (where it gets too stiff and hard in the cold for easy use) and the ants never return after the first application of this method.

To continue to keep your household ant free, routinely spray and wipe down all food surfaces with hydrogen peroxide after use. In our house, we simply wipe down the counter where the honey jar is stored each night. No more ants and no more cold stiff honey either!

35. Fruit Fly Control

Regular Strength

Another common kitchen pest in summer is the fruit fly. These tiny flying insects are capable of breeding at super fast rates and attacking any open fruit

or vegetable in the kitchen. Suddenly your fresh fruit basket is lost in a swarm of these little pests who are stinging the fruit to lay their eggs. Yuck.

The first line of defense is to wash or bathe the fresh fruit and veggies when you bring them home, especially those that you keep at room temperature in the kitchen. This will protect the outer layer of the fruit and reduce the incidence of fruit flies generally.

Next, if you do discover fruit flies in your kitchen, spray them with hydrogen peroxide wherever they are. It will knock them out of the air for easy wiping up without putting any harmful pesticides on or near your food. Keep compost containers and other food sources tightly sealed and wipe down their outer surfaces with hydrogen peroxide solution to remove any odor and eliminate the bacteria that attracts the fruit flies.

This method has worked very well for us to eliminate fruit flies when they do appear and to keep the incidence of their appearances much lower.

Bath

Bathrooms seem to get dirty faster than any other room in the house. They collect dirt, hair, lint, dust and general grime at an amazing rate, and the constant high humidity of showering, bathing and running water don't help matters. It sometimes seems in our house as if the animals must all live in the bathroom, the copious amounts of their shed hair and fur gathering in ugly little communities in the corners… Happily, it's a snap to keep a bathroom clean when you put hydrogen peroxide to work on the job, and the bathroom will also be mold and mildew free with regular applications of the simple h2o2 3% spray.

36. Toothbrushes

Regular Strength

We use our toothbrushes usually several times a day. We rinse them out with water, and place them back in their rack, or in a cup on the sink side. However we do it, most of us don't think much about it until our toothbrushes start to get old, lose bristles or simply get that "smashed" look to them… and then we replace them.

But how can you really keep your toothbrush clean? A great way is to put about an inch of hydrogen peroxide solution in a cup and drop your toothbrush

in on its head. Let it sit there until the next time you use it. Then dump the solution, rinse out the cup and the brush in clean water and you have a completely clean disinfected and bacteria free toothbrush. It won't make the brush last longer perhaps, but it will make you feel like using it more often!!

Note: 3% hydrogen peroxide will destroy all microbes, bacteria, fungi and pathogens in approximately 20 minutes. While it is true that 35% solution will accomplish this in approximately 20 seconds, it also is extremely caustic. Any time you want certain disinfection, simply let the toothbrush soak for no less than 20 minutes in the 3% solution.

37. Hairbrushes Regular Strength

For most brushes, a good cleaning is begun by removing all the hair in the brush and then running the brush under hot water or swishing in a sink of dish detergent or shampoo and then rinsing and allowing to dry. Next time you wash your hairbrush, try adding a few ounces of hydrogen peroxide to the sink along with whatever mild soap you usually use. Your brush will be cleaner, and any mites or other tiny organisms which live on our skin and hair will be eliminated.

38. Bathroom Cleaning General Regular Strength

A spray bottle of hydrogen peroxide in the bathroom is perfect for general cleaning. From walls to windows and windowsills, toilet tops to mirrored cabinets, hydrogen peroxide leaves a residue free clean surface behind.

39. Replacing the Toxins Toilet Cleaners, Acids, Chlorine, and Ammonia Regular Strength

Toilet bowl cleaners are at the top of the list of highly toxic household cleaning products, so replace them with hydrogen peroxide. For seriously stubborn toilet stains you may wish to use a 6% solution. Thoroughly spray toilet and toilet brush, then brush under the rim and around the bowl as usual. Note: If using a 6% solution, don't forget to wear gloves.

Regular strength sodium percarbonate solution for cleaning can replace most of the toxins used for toilet bowl cleaning on the market to day at a fraction of the cost. For severe staining scrub the powder directly with a brush on the stained surface, then rinse with running water or wipe with a clean cloth.

Spraying 3 percent hydrogen peroxide directly on stained toilet surfaces and letting it sit for 15 to 20 minutes also will work very effectively. Wipe clean with a sponge or clean rag.

40. Soap Scum Buildup Prevention Regular Strength

One of the best and easiest ways to reduce soap scum build up in the shower and tub is to spray the interior surfaces of the shower cabinet and/or bath with hydrogen peroxide after each use. Makes that routine bathroom cleaning a LOT easier!

41. Grout Stain Removal Double Strength or Extra Strength

For serious mildew or black staining mold in tile grout, spray with hydrogen peroxide 3% and let sit. You may want to repeat the spraying process a couple of times. Then scrub with a sponge or brush to easily remove the residue. If it doesn't come up right away, simply spray again and wait a bit. Leaves nice clean bright white grout with a simple rinsing.

42. Shower Curtains Regular Strength

To remove dirt, grime, mold and mildew from shower curtains start by soaking the shower curtain in a warm to hot solution of sodium percarbonate at regular strength. Let soak at least one hour, then scrub gently to remove the debris.

In cases where the mildew or mold staining is very severe, you may wish to apply the sodium percarbonate in a paste to the stained areas and let set overnight. After treating the stains wash the shower curtain on the gentle or normal cycle of your washer, then hang to dry.

43. Toilet Cleaner Double Strength or Extra Strength

Cleaning the toilet is another one of those modern chores no one likes and no one wants to do. But someone has to do it! With hydrogen peroxide you can get the toilet bowl clean without introducing toxic chemicals, caustics or acids into your water system. Toilet bowl cleaners are generally among the most toxic of the household cleaners, so it's definitely worthwhile to replace them with hydrogen peroxide.

Start with a clean brush, a spray bottle of 3 percent solution of hydrogen peroxide, and rubber gloves. Spray down the brush until it is thoroughly saturated, then use it up under the rim of the bowl to scrub away stains. Spray down the rest of the toilet, including adding some more spray to the bowl and let stand for 10 to 15 minutes. Return, scrub with the toilet brush, and flush. You can re-spray the toilet with hydrogen peroxide solution after you are done to allow to dry. This will kill all the surface bacterial and germs, which cause odors and leave the toilet area smelling fresh and clean.

Note: For severely stained, discolored or fouled toilets, a 6 percent hydrogen peroxide solution may be needed.

44. Mold and Mildew Killer Regular Strength or Double Strength

Mold and mildew buildup on ceilings and around bathrooms can easily be removed with a spray of 3% hydrogen peroxide solution, which is repeated or let stand for a few minutes. Safe for use on walls, floors, tile, grout (you may wish to spot test wallpaper if in doubt.)

Some molds (particularly black molds) are extremely toxic. To avoid inhalation or release of the mold spores into the air, saturate the affected area with hydrogen peroxide solution first before attempting any removal, cleaning or wiping. Once the area is saturated it is safe to wipe the mold away and dispose of the cloth used for wiping.

Do NOT brush, vacuum or otherwise attempt to remove dry black mold, as this will release the spores into the air and spread the mold to new areas of the home. Areas with serious infestation of mold should be sealed with plastic sheeting and duct tape from other areas of the house before attempting removal.

Laundry

Laundry is another area where hydrogen peroxide in wet and dry forms works absolute miracles. Whether it's reviving old favorite "tennies" or saving that prize table cloth from the gravy stain, hydrogen peroxide can tackle all kinds of jobs in the laundry room that most modern stain remover products just can't touch. Safely brightening colors and whites, and disinfecting and killing bacteria and germs as it does its work, hydrogen peroxide is a true launder's helper.

45. Clothing – Spot Remover

Regular Strength

If you've ever spilled red wine, spaghetti sauce, coffee or other highly staining material on your clothing you know that feeling of frustration as you think you've just ruined a favorite shirt, dress, slacks, etc.

In most cases, particularly on fine or delicate fabrics, it seems pretty hopeless. Not any more. Hydrogen peroxide in a 3 percent solution comes to the rescue. So far, I have not met a stain that I cannot remove using a simple method of spraying the area with hydrogen peroxide and letting it sit; sometimes needing to reapply several times over the course of a day. Wine, red sauce, coffee, chocolate, ketchup, salsa, even mustard stains treated this way disappear without damaging the clothing.

In some cases you may want to use a tiny bit of dish or laundry soap at the same time, but most often I simply use straight 3 percent solution of hydrogen peroxide and it does the job fine by itself.

Tip: NEVER use bar soap to try to remove a stain. Bar soap contains ingredients which act as binders, and you will simply set the stain permanently if you use bar soap, even on a fresh stain. Instead, hang the garment so that the stain is easily accessible and saturate the stained area with 3 percent hydrogen peroxide solution. Check for results in an hour or so, if the stain is still visible, repeat the saturation (a spray application is easiest).

In one case I had a bright white shirt, which I spilled major spaghetti sauce on, and I really thought that there was, no way even hydrogen peroxide could do the trick. It took several applications over two days but in the end the stain was completely gone and the shirt was saved.

Do NOT try to "speed up the process" by using stronger solutions of hydrogen peroxide, as they will bleach the fabric. Instead, be patient and reapply the 3 percent solution over a day or so. It WILL work!

General Laundry – Sodium Percarbonate

Benefits of using sodium percarbonate in the laundry:

- No environmental hazards - breaks down to oxygen, water and sodium carbonate (soda ash) in your wash water.
- Color safe and fabric safe. It brightens colors.
- Continual use will not cause yellowing or graying of cotton fabric
- Effective stain removal in a broad range of water temperatures
- Does not weaken the strength of fabrics like chlorine bleach
- It is very effective as a laundry presoak for heavily stained articles

In the laundry Sodium Percarbonate is used to de-stain, deodorize, and whiten.

Laundry Applications

It is very effective as a laundry presoak for heavily stained articles. For light soils add 1ounce of Sodium Percarbonate with your laundry detergent per load. For moderate soils use 2 ounces and for heavily soiled articles use 4 ounces.

46. Brighten Colors, Color Safe Bleach Regular Strength

Add one ounce (1/4 cup) sodium percarbonate to your regular wash for brighter colors and whiter whites in mixed colored articles.

47. Whiten Old Linens & Drapes Double Strength

For whitening old linens and yellowed window shears, deodorizing and cleaning to remove yellow armpit stains on shirts: soak in 8 to 12 ounces of Sodium Percarbonate per gallon of water for at least one hour, or overnight, then rinse.

48. Heavily Soiled Items Double Strength

For extremely heavily soiled articles, oil soaked rags, work clothes or other deep set grime, mix a presoak in up to 3 ounces (3/4 cup) sodium percarbonate per quart of hot water. Allow articles to soak for at least one hour, or overnight. The sodium percarbonate will be "spent" in approximately 5 hours. After soaking, launder as normal.

49. PreSoak for Stain Removal Double Strength

Remove stains from linens, clothing, or bedding using a presoak of 1 to 2 ounces sodium percarbonate per quart of warm to hot water. Let soak for not less than one hour for best results. Launder as usual after presoak.

50. Fine Garments Regular Strength

To wash or remove sweat and other organic stains from fine fabrics, use a solution of 1 ounce sodium percarbonate per quart of lukewarm water for hand washing, or simply add approximate 1 ounce dry powder to the washer on a gentle cycle setting.

51. Reviving Old Tennis Shoes Double Strength

Revive old tennis shoes with a presoak in 8 to 10 ounces of sodium percarbonate to one gallon hot water. Let soak overnight or at least 5 to 6 hours for best results. Drain and wash in regular cycle in washing machine, air dry outdoors in direct sunlight or dry on low heat in an automatic dryer.

52. Most Organic Stains Double Strength

Hydrogen peroxide, either in liquid or dry form, is most effective on any kind of organic stain. This includes foods, dirt, oils, most plants, urine, sweat, vomit, fecal stains, molds, and mildew.

Using liquid hydrogen peroxide at room temperature or sodium percarbonate solutions at warm to hot temperatures will provide the best results.

Always start with a 3% liquid solution or a regular strength mix of sodium percarbonate (1/4 cup to 1 quart warm to hot water) as this will be all you need for most stains. Apply liquid 3% hydrogen peroxide directly to the stained area and let it soak in and work for at least ten minutes before blotting or regular laundering. For deeply set or very dark staining, use a double strength of sodium percarbonate in a spot application or presoak.

Sodium percarbonate generates heat and oxidation when mixed with warm water, and will continue working for up to five hours, so badly stained items can be left to soak overnight, then drained and laundered normally.

Sick Room

Nobody likes to be sick, but in any household, some of the time, somebody catches a cold or flu and is laid up in bed for a few days or more. When that happens, keep the hydrogen peroxide handy to keep those germs in check and keep that cold or flu from passing around the whole household.

It's interesting to note that the most recent advances in biocontrol, decontamination and bio cleaning are all technologies which implement the use of a hydrogen peroxide vapor capable of completely eliminating all bio contaminants from viruses to airborne mold, fungus or midew spores from contained areas in a matter of hours. Once again the commercial applications of non toxic and environmentally sound solutions seem to lead the way long before home consumers are offered products of equal caliber.

Rather than wait for the latest version of popular household products which may or may not list all their ingredients, it's simple enough to pick up a bottle of hydrogen peroxide and get the job done for a whole lot less cost and effort.

53. Hand Wash Regular Strength

Replace "anti-bacterial" soaps, chlorine based wipes, sprays, disinfectants and other toxic laden products with simple soap and a spritz of 3 percent hydrogen peroxide solution.

Just wash your hands with natural hand soap and then spray them with the hydrogen peroxide. Wipe dry.

54. Spray Disinfectant Regular Strength

Use 3 percent hydrogen peroxide solution as a spray disinfectant around the sick room, to clean surfaces, and to stop the spread of infection. See the personal care section for effective cold prevention with hydrogen peroxide for added protection when taking care of family members with colds and flu.

55. Sore Throats Regular Strength

Use a 3 percent solution of hydrogen peroxide as a mouthwash and gargle when you have a sore throat. It will kill the infection on site and speed healing. If you find that 3 percent is uncomfortable (your throat is really raw and sore) dilute the mixture by 50 percent with distilled water.

56. Vaporizers Regular Strength

Adding 3 percent hydrogen peroxide to the vaporizer is an excellent way to put additional oxygen into a sick room, and improve ease of breathing during congestive illness. Simply add one cup of 3 percent hydrogen peroxide to the standard vaporizer water chamber before running.

Between uses, the spray bottle of 3 percent solution is the perfect healthy and natural cleaner for the vaporizer before it is put away.

Never use hydrogen peroxide in a steamer or with any form of boiling process. The extra oxygen which makes hydrogen peroxide what it is, is extremely volatile when hydrogen peroxide is heated and can cause flash fires and/or explosions.

Baby Care

Keeping babies healthy and happy and in a safe environment is right at the top of every mother's list of most important things to do.

But with so many household cleaners containing chlorine, ammonias and other volatile and respiratory impacting chemicals, it's not as simple as it might seem.

Scientists tell us that over 100 new chemicals are found in the blood, tissue and bone of humans of our modern age… something so new that only 100 years ago the vast majority of these chemicals were not present in our bodies or our environments.

So, it makes sense that we should be paying closer attention to the chemicals which surround those youngest members of our households.

57. High Chair Trays Regular Strength

Keep a spray bottle of 3 percent hydrogen peroxide handy for quick cleanup and disinfection of baby's high chair tray. The hydrogen peroxide is safe, non-toxic and effective at killing germs, so baby will be clean without exposure to dangerous chemicals.

If you need a little viscosity in the mix for stuck on foods, add a few drops of natural dish washing liquid to the spray bottle and shake gently.

58. Playpens/Cribs Regular Strength

Wipe rails, flat surfaces and interiors with a 3 percent hydrogen peroxide solution and a clean cloth. Because babies often teethe on the rail edges of their cribs or playpens and always are putting their hands in their mouths even if they aren't teething and chewing the actual crib or playpen, it is important to keep these surfaces clean. A quick wipe down every few days with a 3 percent solution left to air dry will disinfect and clean at the same time.

59. Diaper Pails Double Strength or Extra Strength

While it's true that only about 15 percent of households with babies in industrialized nations use cloth diapers anymore, cloth diapers in general are a very handy item even if you don't use them for diapering, when you have a baby. If you are using cloth diapers to diaper your baby, the chances are that you were taught to use chlorine bleach to wash them. While the disinfection certainly is handled this way, the addition of chlorine to cloth which will be worn next to baby's skin is a less than optimal result. Chlorine is absorbed by the skin, and babies are particularly sensitive and susceptible to skin irritation from harsh chemicals.

To replace chlorine bleach in diaper pails use 1 cup of 6 percent hydrogen peroxide liquid or 14 to 16 ounces sodium percarbonate for every gallon of soaking solution for the diaper pail. The solution should also contain a simple laundry soap – Original Arm and Hammer Washing Soda (also known as Soda Ash, or Sal Soda in some places), Dreft, or some other mild laundry detergent formulated for baby's skin.

For soaking pails, change or add fresh solution daily to retain antibacterial properties of the hydrogen peroxide. Diapers should be well rinsed of all fecal matter and debris before placing in diaper pail.

60. Laundry Regular Strength or Double Strength

Add 1 ounce of sodium percarbonate to regular washing to get baby's clothes fresh and bright and remove odors of sour milk and/or urine.

For heavily soiled baby items, presoak in hot (100 to 150 degrees F) water and sodium percarbonate at a dilution of12 to 14 s per gallon of water. Let soak at least 30 minutes before laundering.

61. Baby Bottles Regular Strength

To disinfect baby bottles after washing in hot soapy water spray the interior of the baby bottles with 3 percent solution of hydrogen peroxide. Set bottles upside down in dish drainer to dry. No rinsing is required.

This same technique can be used for bottle nipples and pacifiers, or these smaller items can be set in a rinse water of 3 percent hydrogen peroxide for 5 to 15 minutes after washing, then simply remove, drain and set to air dry.

62. Toys Regular Strength

To keep baby's plastic toys, blocks and playthings clean, spray with 3 percent solution and wipe dry with a clean cloth.

It's also a good idea to periodically make up a solution of warm water, a small amount of liquid dish soap, a cup of hydrogen peroxide and a quarter cup of baking soad and gently wash all of baby's plastic tyos.

For stuffed animals, a laundering with a mild baby safe detergent and ½ cup of sodium percarbonate will clean brighten and disinfect.

Wooden blocks and toys can be sprayed with 3 percent solution of hydrogen peroxide and placed in the sun to air dry.

63. Pacifiers/Teething Rings Regular Strength

Items often in baby's mouth, like teething rings, should be given a 3 percent

hydrogen peroxide bath occasionally to kill germs and sanitize thoroughly. The easiest way to do this is to fill a small to medium sized Tupperware container with enough hydrogen peroxide to cover the teething ring or other teething toys. Wash the items to be sterilized with hot soapy water and rinse, and then simply place in the hydrogen peroxide "bath" for a minimum of 15 minutes. Remove and allow to air dry.

64. Strollers, Walkers and Baby Carriers

Regular Strength

Baby accoutrements these days come in all sorts of shapes and sizes, from backpacks to carry babies to car seats and baby chairs which can be used to carry the baby about. Many times the equipment includes straps, harnesses and other devices to keep baby snuggly settled in.

For fabric linings on baby seats, carriers and strollers, remove and launder with a mild detergent and ½ cup sodium percarbonate in the wash cycle to gethem bright, fresh and clean again. For strollers and carriages with bumper bars where babies often teethe or bite, spray thoroughly with 3 percent hydrogen peroxide and let stand at least 15 minutes, then spray, wipe and dry.

In cases where the fabric cannot be easily removed from a metal frame, as in some bably backpacks and strollers, mix up a general solution of sodium percarbonate (1/4 cup to 1 quart warm to hot water) and scrub the fabric with a brush or sponge, rinse and set out of doors to dry.

Molded plastic baby carriers, seats and other equipment should be completely washed with either a 3 percent solution of liquid hydrogen peroxide or a general cleaning solution of sodium percarbonate periodically.

Note: If you receive second hand baby items for your baby always take the time to wash them before use with your baby. Baby items can carry germs, traces of urine, spit up and other unpleasant odors and illness causing bacteria and mold will grow readily in such environments. Never use chlorine bleach on items which come in direct contact with baby's skin, as chlorine is easily transmitted through the skin.

Personal Care

The subject of hydrogen peroxide and personal care, hygiene and such things as cold prevention seems to be exceptionally fraught with misinformation these days. While this section covers basic topics such as hydrogen peroxide bathing, foot soaks and cold and flu prevention, there is a great deal of information that would more naturally be suited for "medicinal" or health beneficial uses of hydrogent peroxide. While it is not within the scope of this book to cover this subject (ineed it would take another entire book to address the subject) there is a new appendix in the back of the book covering basic knowledge anyone should know about handling or ingesting hydrogen peroxide along with a resource guide for physicians and practitioners who can better guide you in this type of application.

65. First Aid

Regular Strength

Hydrogen peroxide is most commonly known for treating wounds, open cuts and sores, or infections on the skin. It works great for these purposes, and is highly recommended. At 3 percent solution it does not act instantly and should be allowed to bubble up on the surface to do its work.

For most common household cuts and scrapes, hydrogen peroxide is all you'll ever need… But in cases where known pathogens were present at the wound site (coral reef cuts, for example) it is wise to apply an antibacterial antibiotic ointment such as Neosporin or erythromycin to the wound after cleaning.

66. Bathing

Regular Strength

To rejuvenate stressed nerves, tired muscles and sore aching joints, there is nothing much better than a good soak in the tub with hydrogen peroxide and either Epsom or sea mineral salts.

Hydrogen peroxide baths have been a staple for many in the naturopathic community for some time. In fact, it is now known that the healing waters of Lourdes, Fatima's and other famous "healing springs" around the world have higher than average hydrogen peroxide concentrations.

So soak your worries and aches away in a hydrogen peroxide bath and you'll feel better, soften and heal your skin and sleep like a baby.

A standard hydrogen peroxide bath can be made of 1 to 2 cups 3 percent hydrogen peroxide to approximately one half tub of water in a standard bath tub size. If you have a huge bathtub you'll just need to add more hydrogen peroxide. Add one half to one cup of either Epsom salts or mineral sea salts and you'll give yourself a real healthy mineral soak.

This bath is great not only for soothing the nervous system, it also works wonders for your skin, healing small abrasions and oxygenating the whole body. Some even say that regular hydrogen peroxide bathing will eliminate parasites in the intestinal tract and throughout the body. While I have never done any research on this aspect of hydrogen peroxide bathing, I can say that as a regular user of hydrogen peroxide for bathing, ear drops and mouth wash, I have not come down with any of the colds or flu's other members of my household have been stricken with over the years. I just don't get sick, or if I get a slight cold while caring for others who are in bed for a week, it lasts a day and is gone again. Well worth the "effort" of those regular hydrogen peroxide baths!

67. Humidifiers Regular Strength

While it is true you can and should use hydrogen peroxide and white vinegar (keep sprays in separate containers, do not premix or the hydrogen peroxide will break down before use) to clean your humidifier, it is also true you can add hydrogen peroxide to the water of the humidifier to eliminate algae, mold, mildew and fungi growth in the humidifier over time.

Use a standard one cup 3 percent hydrogen peroxide solution to each gallon of water added to the humidifier when you fill it each time. This will also help to oxygenate the air in the room where the humidifier is operating. Great for houseplants, pets and people alike.

68. Teeth Regular Strength

No, we are not talking only about bleaching teeth. Bleaching teeth is routinely accomplished with hydrogen peroxide and other forms of peroxides which are commercially available in strips, gels, or at the local dentist in specialized applications. If bleaching your teeth is what you want to do, it is HIGHLY recommended that you stick to commercially available applications designed for this purpose. Do not attempt to make up your own teeth bleaching solutions unless you have a great deal of experience using hydrogen peroxide; and even then I would simply avoid any risks of home created remedies and use a commercially available product designed for safe teeth bleaching.

Hydrogen peroxide at levels above 5 percent can cause bleaching in fabrics and on skin. That means the 3 percent solution you may use as a mouthwash or dental orifice is not likely to actually bleach your teeth, however, regular use of good old 3 percent solution in teeth brushing and mouth rinse can be very effective at keeping teeth bright and clean. If you need more whitening power than this, please remember that teeth are made from enamel; they are not impervious to oxidation which will, conceivably, at higher concentrations, actually damage or wear away the enamel itself. No matter how tempting, do NOT ever use a straight hydrogen peroxide solution higher than 3 percent solution directly on the teeth surfaces. Stick to the tested and safe products on the market designed for teeth bleaching to do that job.
But do use the 3 percent solution in a mix with baking soda for toothpaste and you'll discover your gums get healthier, your breath is fresh and your mouth is all around healthy.

69. Mouthwash Regular Strength

It is generally recommended that hydrogen peroxide solutions be used to heal cuts and sores in the mouth by gargling with a dilution of 3 percent hydrogen peroxide in water after teeth brushing.

Dilute the hydrogen peroxide at least one to one, swish, gargle and spit out.

70. Hair Bleaching Double Strength

Many people mistakenly believe that they can achieve a "platinum blond" hair color by using straight hydrogen peroxide (at 6 to 9 percent solution) for bleaching. In fact, while hydrogen peroxide will strip the hair of color, or lighten it, it does not make the hair blonde so much as "no color" which looks more or less like a cross between white and grey and does not look really "blond".

To achieve those rich blond tones you need actual hair coloring agents. Hair coloring agents and hydrogen peroxide (mixed with other activating bleaching chemicals) is what most commercial hair color products are made of. They are full of chemicals, and pretty darn toxic, but hey, if the color of your hair matters that much, go ahead and use a commercial product to bleach your hair.

Or, if what you really want is just hair without color, you can "bleach" your hair with hydrogen peroxide. First snip a small lock of hair for testing. Then mix a solution of 6 to 8 percent hydrogen peroxide, and dip the test lock of hair into the solution. Place the wet strand of hair on a clean surface and wait approximately 15 minutes to ½ hour while observing the change in hair color to the strand. Do not use a solution stronger than about 9 percent for this purpose, and be aware, that applying this solution to your hair will definitely mean it will be in contact with your scalp and for most people the sensation is one of slight tingling to actual "burning". The hydrogen peroxide will not do any permanent damage to your scalp or your brain or anything like that, but it doesn't feel so great for some folks!

In general, you will observe a lightening of the hair. However, depending on the original color of the hair and other previous chemical applications, etc. the change in color may not be what you expected.

For those with naturally deep red hair color, a slight yellowing or bronzing effect may occur. For those with brown or darker hair a sort of transparent "non color" may occur. Test that strand before you attempt to change the color of your whole head of hair to avoid unhappy surprises!

71. Cold/Flu Prevention Ear Drops

Regular Strength

This is one of my longest standing and all time favorite hydrogen peroxide applications and it works like a charm, if you do it soon enough. If you wait until you already are really sick it will work, and shorten the time of your illness, but it won't prevent it, and it won't stop it in its tracks exactly… You'll still need a day or two to get better.

So BEFORE you really are sick, but when you either:
Notice others around you in your household are sick
Notice that your throat is starting to feel "scratchy"
Notice that your nose is getting stuffy
Notice that your sinuses are feeling enflamed or sensitive
Notice that your eyes are watering or you're sneezing

At the first sign of any of these "cold precursors" it's time to take ten minutes and stop the cold or flu before it really gets hold of you.

Using either a shallow dish and a few q-tips or a small eyedropper, and some tissue, lie on one side and drop six to eight drops of 3 percent hydrogen peroxide solution into your ear (the raised ear, obviously.)
Lie on your side for at least 3 to 5 minutes and let the hydrogen peroxide trickle down inside your ear canal. This feels really funny at first and for some people the tickling is just too much, but TRY to get used to it, and let that bubbling and gurgling go on for at least a few minutes.

Then apply a soft wad of tissue to the ear as you turn your head to let the hydrogen peroxide drain out. It will all drain out readily, and you can use a clean dry q-tip to swab the outer area of the ear to dry off the excess hydrogen peroxide on the skin surface of the outer ear.

Turn your head the other way and repeat with the other ear.

When its flu season and the kids are bringing home colds and coughs and flu from school it's a good idea to keep this treatment in mind as you find yourself caring for sick people in your own household.

When family members are actually in bed and sick and I am caring for them I will repeat this process every other day or so, just to make sure I am not catching what they have.

Note: If you have an enflamed ear, painful ear infection or other signs that might lead you to suspect a ruptured eardrum, you should not use this treatment. Check with your doctor first if you have a painful ear condition before using this remedy.

72. Hand Washing — Regular Strength

Mix in 1 part hydrogen peroxide to 3 parts of your favorite natural liquid hand soaps for added disinfection power.

73. General Foot Care — Regular Strength

Just as it does wonders to soak your whole body in a hydrogen peroxide bath, so it does your feet great wonders to soak them in a tub of hot water, hydrogen peroxide and Epsom or mineral salts.

Doctors have now proven that this regular soaking actually improves circulation to the feet, reducing varicose veins and swelling and killing the fungi and other bacteria associated with athletes foot.

A good foot soak in a whirlpool foot bathing tub with hydrogen peroxide and minerals feels wonderful too.

And speaking of athlete's foot…

74. Athlete's Foot Regular Strength

Before you go out and spend a small fortune on who knows what chemicals, drugs or other remedies for athlete's foot, try soaking your feet as noted above.

Spraying the feet with straight 3 percent hydrogen peroxide solution after bathing and at the beginning and end of the day after wearing shoes or after a morning shower, will dramatically improve all forms of scaly skin, athletes foot and other foot problems.

Spraying down the shower stall you use daily after each use with 3 percent hydrogen peroxide solution will also kill the fungi that cause the problem and help to eliminate repetitive re-infection.

After soaking the feet, use either a pumice stone or a drug store variety skin file to remove the excess dead skin that will become soft and white during the soaking process. Then scrub feet briskly with a clean foot brush or bathing sponge and hydrogen peroxide before drying**.**

75. Skin Infections and Rash Regular Strength

A hydrogen peroxide bath is the best cure for skin abrasions I know, and I've had scrapes heal up overnight after one hydrogen peroxide bath, but if you don't have the time or inclination to soak in the tub, just spritz the affected area a couple of times a day and let air dry.

Your skin will heal much faster, and as a benefit I've noticed there is no scarring.

76. Circulation Improvement

Regular Strength

This remedy for circulation improvement is from Majid Ali, M.D.
If you are interested in understanding the complexities and intricacies of integrative medicine, his works are a great place to start. We've put his web site information in the Appendix of Resources at the back of this ebook.

Protocol for Hydrogen Peroxide Foot Soaks and Baths

Hydrogen peroxide soaks can be used with different concentrations of H_2O_2 and salt. The following is the standard protocol prescribed at the Dr. Ali's Institute:

H_2O_2 Soaks Protocol

Water 20 parts
H_2O_2 3% 1 part
Salt One teaspoon
Time 20 minutes

The recommended choices of salt are as follows: (1) Epsom salt; (2) sea salt; and (3) common table salt.

Stronger solutions of H_2O_2, such as one part of H_2O_2 and 10 parts of water or 1 part of H_2O_2 and 15 parts of water may also be tried to test for variations in efficacy for individual persons.

For chronic conditions, I generally prescribe foot soaks on a four or five day a week basis. For sub-acute conditions, daily soaks are recommended. Uncommonly, I have prescribed such soaks on a twice-daily basis.

There are several good brands of foot-soak and foot-massage units available on the market. The one made by Brookstone Company creates effective whirlpool conditions and includes a "nodule" for effective massaging of tender points on the feet or ankles.

77. Skin Care – Anti-Acne

Regular Strength

Acne breakouts – everyone hates them, but lots of us get them. Even occasional breakouts are a nuisance.

Real acne is minor clogging of pores with sweat and dirt. It is not infectious, and is not a skin eruption from below the dermis. A thorough washing of the face with a mild cleanser each day is the best deterrent to acne.

For spot relief, a cotton swab dipped in 3 percent hydrogen peroxide can disinfect a pimple… Do not apply pressure. If the hydrogen peroxide has no effect, then the eruption is something more systemic than acne and may require other treatments.

In fact, if you have something you are thinking of as "acne" and it does not respond to hydrogen peroxide application (use a cotton ball or pad, apply the saturated cotton to the acne, do not apply pressure). Then you very likely are not experiencing an acne break out. It is more likely to be a form of boil, infection or other skin irritation, which is symptomatic of the body's release of toxicity and not simple acne.

This is good to know if you've been thinking to yourself that hydrogen peroxide doesn't "work on my acne".

Hydrogen peroxide heals acne with only one or two applications to the affected area.

For general good skin care, it is also great to spritz with 3 percent hydrogen peroxide after showering or bathing.

If you have very sensitive skin, dilute your 3 percent solution again by adding 50 percent distilled water, and it will still be very healthful for your skin.

78. Deodorant

Regular Strength

Because hydrogen peroxide is anti bacterial, it is a great deodorant. It simply kills the germs and bacteria that cause odors. A hydrogen peroxide spray or quick wipe with a hydrogen peroxide saturated cloth allowed to air dry and then followed by crystal deodorant stone or other natural deodorant will keep you smelling fresher longer, since you've started with a clean skin surface.

79. Bruise Soak

Regular Strength

The next time you bang your shin, or whack your wrist, set it to soak in a soak of mineral sea salts and hydrogen peroxide mixed in hot water. It is possible to completely "skip" the bruising stage this way, if done right away.

Mix 2 to 4 tablespoons Epsom salts, 4 ounces 3 percent hydrogen peroxide in one to two gallons hot water. If you start with one gallon and keep adding water, you may get to two gallons… see?

This soak is also great for circulation, and the recommended foot soak protocol from Dr. Majid Ali can be found there.

Plants

Using hydrogen peroxide for plant care is effective and relatively simple. Whether you are growing indoor plants or working out of doors in the garden, hydrogen peroxide can be used for aerating soils, killing viruses and molds, and even pest control. Mixing small amounts of 3 percent hydrogen peroxide in the watering can or sprayer for foliage applications helps keep plants healthy and thriving. Strong solutions, over 10 percent, can even be used for direct application non toxic weed killing.

80. House Plants

Regular Strength

Keep houseplants healthy and green by adding 4 ounces (½ cup) 3 percent hydrogen peroxide to 1 gallon of water when watering. This will oxygenate the soil and root system of the plant, improving growth and color.

If you have a plant that is not doing well, repot it in fresh soil and use this watering solution intermittently for several weeks.

81. Plant Diseases & Fungi

Regular Strength

Use hydrogen peroxide as a natural fungicide to kill diseases and microorganisms attacking your houseplants. Mix 8 ounces (1 cup) 3 percent solution to 1 gallon of water. Dispense in a spray bottle, misting the affected plants every few days until they improve.

In cases of serious damage or disease, many horticulturists recommend a straight 3 percent spray solution applied directly to plant leaves. However, some plants are very tender, and this solution may be too strong. Test on one leaf before spraying the entire plant if you are uncertain.

The 8 ounces 3 percent to one gallon of water solution is also recommended for plants in high stress from either too little water, or over watering leading to root rot. In the case of over watered or improperly drained plants, repot in fresh soil before applying the solution.

82. Sprouting Seeds

Regular Strength

Whether you are sprouting seeds for the sprouts or to start a new crop in the garden, hydrogen peroxide works wonders for sprouting seeds. Keeping seeds moist as they germinate without sprouting grey fuzzy mold can be a neat trick. But with hydrogen peroxide it's simple.

Ensure your seed sprouting success by starting with washing the sprouting equipment (sprout trays, plastic planters etc) with regular hand dish washing liquid and hot water. Next, spray the trays down with 3 percent hydrogen peroxide solution, followed by a spray down with white vinegar. Wipe the trays until clean and dry with paper towel or a clean cloth. This will disinfect the growing area before you begin.

Next, follow the instructions for your sprouting seeds, either by setting them in a glass jar with clean water to soak for a bit, or by moistening and placing in the planting trays. However, instead of using plain water to rinse and prepare your sprout seeds, use a hydrogen peroxide dilution of 4 ounces of 3 percent hydrogen peroxide to one quart of water.

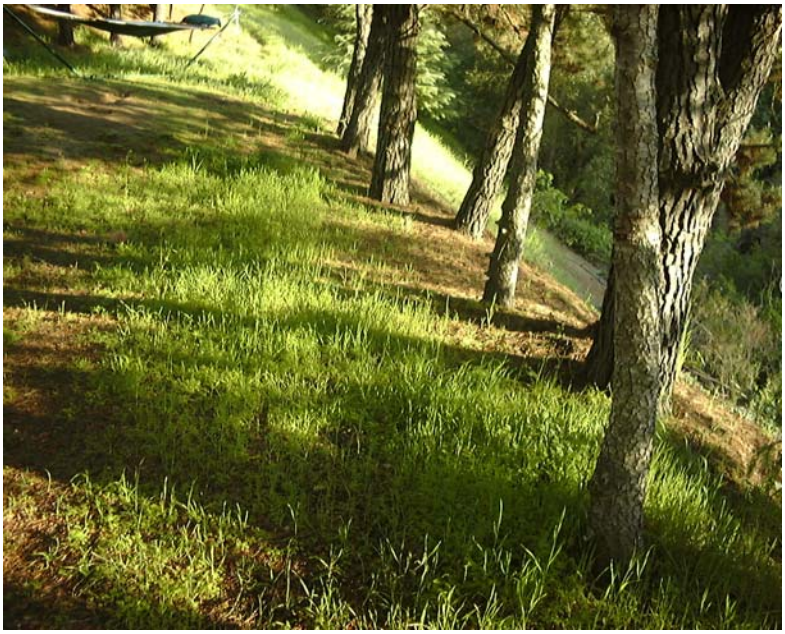
Each time you rinse the sprouts or water them in the growing cycle, use the hydrogen peroxide solution instead of plain water.

Your sprouts and seedlings will grow faster, stronger and greener, and you won't be trying to rinse off grey fuzzy mold from baby plants headed for the garden or dumping trays of eating sprouts as inedible because of mold growth.

Once the seedlings are moved out of doors or into the garden, continue to use a mild hydrogen peroxide solution when watering once a week or so throughout the growing season. You'll be pleasantly surprised at how well your garden grows with a little h2O2 in the water.

Tip: remember to repeat the washing and disinfecting steps each time you start a new crop of sprouts. This way your sprouting trays cannot harbor molds or other airborne yeasts, mildews and fungi.

Outdoor Uses



Garden

83. Garden Plants

Regular Strength

Hydrogen peroxide works equally well in the garden, and can be applied using a watering can or with a liquid sprayer. Set the dilution to 4:64 for liquid sprayer units (that translates to 1 ounce per gallon, or roughly ½ cup per gallon.) Saturating the soil around garden plants and spraying the foliage will improve plant strength, growth and color.

84. Cuttings and Rootings

Regular Strength

Start new cuttings to root in a solution of ½ cup 3 percent hydrogen peroxide to 1 gallon of water. They'll root faster and begin new leaf growth sooner, too.

85. Pest Control – Spider Mites, Flea Beetles and Aphids

Regular Strength

Here is a handy organic solution to some common garden pests. Simply mix together

8 oz 3 percent hydrogen peroxide
8 oz white sugar
1 gallon water

Once mixed thoroughly pour some off into a sprayer bottle for use. Spray the undersides and tops of foliage thoroughly. You may have to repeat the procedure for several days before you've turned the tide on these plant eating pests, but it will work.

Remember there is sugar in this mixture, so you might want to move any afflicted houseplants out of doors before applications. That will avoid spraying a sugar water indoors where it could adhere to walls or floors or attract ants.

86. Weed Killer

Extra Strength

Hydrogen peroxide at a 10 percent solution is an excellent non-pervasive and eco friendly "herbicide". There are no commercial products available at a 10 percent solution, so the easiest way to do this is to purchase 30 percent agricultural hydrogen peroxide and simply dilute it down to the desired 10 percent solution. Apply directly to the targeted weeds. This will also work with aquatic weeds. However, if killing off weeds in a contained fishpond, do not

add such concentrations to the pond without first removing the fish and any plants you do not intend to kill!

87. Birdbaths Double Strength

Is your birdbath full of algae and slime? If it is… empty the water and let it stand for a few days in dry weather. Then fill to cover the dried growth with 3 percent solution of hydrogen peroxide and let it stand for at least an hour. In the years I have been doing this, I've never had a problem with birds going to the birdbath while I'm in the midst of the cleaning, but you may cover the birdbath while the hydrogen peroxide is doing its work. (If the birdbath is in direct sunlight, definitely cover it, as the sunlight breaks down the hydrogen peroxide and will reduce its effectiveness.)

After an hour or more, scrub out the now mostly broken down algae and crud and rinse with fresh clean water. If your birdbath is really bad, you might have to repeat this process once more to get it really clean.

You can also use a mixture of 3 percent hydrogen peroxide, baking soda and kosher salt (for the large crystals). Make a goopy paste consistency mixture to use when scrubbing out the bird bath to speed things along. The baking soda will remove all the odors of the algae as well and the salt will provide the abrasive action to remove the algae from the bird bath surface.

88. Hot Tubs

Double Strength or
Extra Strength

*****Move 85 to below the 4th paragraph here below:**********

There is nothing so relaxing as a warm, bubbling soak in a hot tub… Particularly if that hot tub is cleaned with hydrogen peroxide rather than chlorinated. The oxygen enriched water smells clean and fresh, softening your skin and soothing your body as you soak.

According to the Merck index, hydrogen peroxide can be used as a water disinfectant. In fact, it is used internationally for water disinfection, treatment of wastewater, water gardens and, increasingly, in swimming pools and spas.

Some newer pool disinfection systems actually use recently developed equipment to generate oxidation in the water as it passes through the cleaning system. In these newer systems the need for additional chemicals in the water can be completely, or nearly completely eliminated.

While older spa systems rely on harsh toxic chemicals which fill the surrounding area with their fumes and odor, these newer system provide clean, fresh oxygen enriched water for bathing which has no odor.

For those not ready to invest in an entirely new hot tub filtration and water disinfection system, food grade hydrogen peroxide offers a transitional solution.

You can eliminate the use of chlorine or bromine chemicals in the spa and use hydrogen peroxide instead of these chemicals. Adding any type of ozonator or UV sterilizer to the system will also assist the hydrogen peroxide in the event that your water contains high levels of iron or organics, which will break down the hydrogen peroxide more quickly. If you are unsure of the mineral content of the water, begin using the hydrogen peroxide as described here, and test for hydrogen peroxide levels frequently.

Begin by shocking the tub with a high dose of 35 percent food grade hydrogen peroxide. Add one cup (8 ounces/250 milliliters) of 35 percent hydrogen peroxide per every 250 gallons (1000 liters) of water in the tub. Run the pumps to circulate the water as you add the hydrogen peroxide and then intermittently over the next 24 hours.

Note: Be sure to check and empty the filters when beginning and several dimes through out the first 24 hours as the hydrogen peroxide will break down organics and other materials in the water and may at first create an excessive load on the filter system as you transition.

Allow the water to stand overnight (after the initial 24 hours have passed. Then circulate the water briefly before using a hydrogen peroxide test strip to measure the level of hydrogen peroxide in the water.

Hydrogen peroxide levels should run between 30 and 100 ppm (parts per million) for regular hot tub use. If the levels are below 30 ppm when testing, add hydrogen peroxide at a rate of 1 cup 35 percent food grade hydrogen peroxide per 500 gallons of water. Circulate and let stand several hours before testing after adding hydrogen peroxide.

By testing often in the early stages of using hydrogen peroxide you will be able to determine how often you will need to add hydrogen peroxide to the spa. The levels will vary according to the frequency and number of people using it. Test at least weekly once you have a general idea of what your spa needs to maintain optimum levels of hydrogen peroxide.

89. Swimming Pools Double Strength or Extra Strength

Swimming pools as well can be run on hydrogen peroxide instead of chlorine, bromine or other chemicals. Using food grade hydrogen peroxide for

swimming pools has become so popular that it is the fastest growing market segment of consumer purchases of food grade hydrogen peroxide.

Like hot tubs and spas, swimming pools can be effectively maintained using hydrogen peroxide. However, unlike hot tubs and spas, swimming pools are substantially larger bodies of water and ideally, should not require constant circulation or pumping.

In recent years, several product lines have become available on the market, which allow you to set up oxidizing systems which do not require the addition of any chemicals, or even hydrogen peroxide. These new systems are becoming increasingly popular as more and more commercial and home swimming facilities recognize the drawbacks of chlorination.

To achieve the highest level of purification it is generally recommended that any oxidizing system should also consist of an additional UV (ultra violet) disinfection system as well as the oxidizing unit. Many prepackaged systems are comprised of both the oxidizing and the ultra violet disinfection systems.

90. Water Gardens Regular Strength

Hydrogen peroxide is used in commercial water gardens around the world for water sanitizing and as an algaecide. When using hydrogen peroxide for water gardens, a dilution of 8 ounces (1 cup) of 3 percent solution to each 5000 gallons of pond water will give you a clean water garden.

You can provide a natural hydrogen peroxide emission system by adding baled barley, peat or lavender to the pond. These plants naturally produce hydrogen peroxide in the pond over time.

91. Fish Ponds Regular Strength

As with water gardens, commercial fish farms, aquariums and other commercial aquatic operations rely heavily on food grade hydrogen peroxide for cleaning, algaecide and sanitizing the water.

In smaller consumer based applications, again care must be taken to avoid over dosing the pond. Hydrogen peroxide even in very weak dilutions can affect fish and other aquatic life.

In general, dilutions of 1/8 cup of 3 percent hydrogen peroxide to 1 gallon of water are preferred, and water should be added to the fish pond one gallon at

a time; never change out the entire pond and refill with hydrogen peroxide diluted water. Instead, simply add the hydrogen peroxide, one gallon of dilution mix at a time, over the course of a week or two.

92. Outdoor Fountains Regular Strength to Extra Strength

For outdoor fountains not containing fish, add one cup 3 percent hydrogen peroxide to the running fountain every few weeks to keep water clean and clear and algae and bacteria free.

If the fountain has a filtering pump, be sure to check the filter and clean it after adding the hydrogen peroxide to avoid clogging and pump failure.

For more serious cleaning jobs, you'll want to pick up some sodium percarbonate. To clean a fountain that has accumulated algae and organic matter start by draining the fountain. Then remove as much of the loose material as possible. Then apply a generous coat of sodium percarbonate, being sure to wear gloves or make certain the sodium percarbonate doesn't come in contact with your skin.

Let the sodium percarbonate sit on the fountain's interior surfaces until it has had time to do its work. It will bleach and loosen all the algae and scum. If needed, use a scrub brush for the toughest stains and built up algae areas, then rinse down with water and drain again before refilling with clean water.

Caution: sodium percarbonate dissolves in water to an approximate 27 percent hydrogen peroxide solution. This will burn your skin, and can kill fish and plants at such a high concentration. If working in a garden area, be sure to continually run water over the area where the sodium percarbonate is draining to dilute it down to levels safe for the surrounding environment.

You can also use the 3 percent hydrogen peroxide, baking soda and salt mixture as advised for bird bath cleaning in place of the sodium percarbonate, but it will not work as quickly and it will not bleach the surface of the fountain. However, it will work just as effectively for most fountain cleaning jobs, and will not require the extra caution of higher concentration sodium percarbonates.

Auto

These days it seems we all spend too much time in our automobiles, but even if you mange to avoid being in the car for hours every day, it's a good idea to keep that interior clean and healthy for the times you are inside it. Using toxic chemicals to clean upholstery, windows or interior surfaces of your car will put you into a toxic environment every time you drive or ride in the automobile. Instead, use hydrogen peroxide to clean and freshen the interior (and exterior) of your car for a safe, healthy and pleasantly fresh ride.

93. Window Cleaner

Regular Strength

As already noted in the indoor general cleaning section, hydrogen peroxide at 3 percent solution is an excellent glass cleaner. It is great for interior and exterior auto glass, leaving a clean fresh "no scent", removing musty odors, and is quite literally streak free.

Automobile interiors can become quite grimy over time. Fingerprints, dirt, and the accumulations of dust, dander, pet and human skin oils can leave a filmy residue on interior glass surfaces. Hydrogen peroxide not only cuts through and cleans all that build up, it also disinfects and freshens the interior of the automobile.

Keep the doors open while washing the interior windows to allow for proper ventilation. Spray a 3 percent solution directly on the glass and wipe clean with a clean cloth, unprinted newsprint paper or paper towel.

94. Mirrors and Chrome

Regular Strength

If you think it's great on the windows, just wait till you see how well it works on your mirrors and chrome! Mirrors stay clear and chrome shines bright. That simple 3 percent solution spray bottle can handle it all.

95. Vinyl and Plastic Interior Surface Cleaner — Regular Strength

3 percent hydrogen peroxide spray is perfectly safe for use on vinyl, plastic and other man made interiors found in automobiles. It will deep clean, spot clean and deodorize the car all with one application. Simply spray down the seats, interiors of car doors, moldings, dash units and glove boxes with the 3 percent solution and wipe clean with a sponge or clean damp cloth.

Use a dry rag to wipe down all the surfaces once they are clean to remove any excess moisture.

If you have fabric upholstery, test a small un-noticeable area first for color fastness, usually it's fine and there's no problem, but test to be sure. For deep-set stains, spray the hydrogen peroxide and let set. Then blot or wipe with a clean cloth or sponge and let dry.

In cases where spills or stains leave odors (milk, urine, sugared drinks etc) you may want to use a small paste application of baking soda and 3 percent hydrygen peroxide. Apply directly to the affected area and let stand for several hours or overnight, then brush up excess powder and blot the area with a clean cloth.

96. Carpet and Upholstery Spot Cleaning — Regular Strength to Double Strength

For carpeting stain removal in the car or truck, follow the same instructions we use for regular carpet and upholstery cleaning in the home. Saturate the area that is stained and let set for a few moments. Then blot. Repeat as needed.

Before attempting stain removal of carpeting, it's a good idea to vacuum the carpeting and remove all loose dirt and debris. Then apply the hydrogen peroxide to the stain(s), let set for a moment, then blot and repeat as needed. Most of the time one application will do the trick. In fact, often you can watch the stains disappear right in front of your eyes as soon as the hydrogen peroxide is applied.

For deep set or odiforous stains, use the baking soda and 3 percent hydrogen peroxide paste in spot applications. Leave for as long as overnight, brush or

vacuum up the excess powder residue and blot clean with a cloth. You may want to apply a final spray of 3 percent hydrogen peroxide after the application and blot one final time for complete removal of the stain and odor.

Concrete Patios, Garage Floors and Driveways

97. Patio Cleaning

Regular Strength to Double Strength

Is your outdoor patio stained? Whether from mud, grease, or other contact with staining materials, concrete can become stained and unsightly over time.

To remove stains from a concrete or brick patio, mix 4 ounces sodium percarbonate to each quart of hot (100 to 150 degrees F) water. A few drops of liquid dish soap can be added to the mixture to help it adhere to the concrete surface better. (Liquid dish soap is a surfactant). Apply the liquid to the patio using a long handled scrub brush (non metallic) stiff broom or mop. Let stand at least 10 to 15 minutes, then rinse thoroughly with running water. In case of severe staining, scrub again before rinsing and repeat if needed.

98. Garage Floors

Double Strength or Extra Strength

Remove stains from concrete garage floors with the same formulation as for outdoor patios. In this case you may want to start with the dry sodium percarbonate powder and small amounts of warm to hot water to contain the cleaning solution to a smaller area. You can also apply a few drops of liquid dish soap to help the solution adhere to the stain.

Be sure to vacuum, sweep or otherwise remove all loose dirt, sawdust and other loose material before beginning. Use sawdust or clean sand to remove as much excess oil or gasoline from stains caused by these hydrocarbon compounds before attempting to remove the stains.

Clean sand, kitty litter and saw dust all work well to soak up oils and gas, but remember that any material used in this way must be contained and disposed of according to local hazardous waste removal regulations. Oil and gas contamination of groundwater sources is a serious problem, so make sure you dispose of the soiled materials properly.

After all excess oil and debris has been removed, sprinkle the sodium percarbonate on the stained areas, adding small amounts of warm to hot water as you work. Brush vigorously with a non-metallic scrub brush and then rinse clean with flowing water.

99. Driveways Double Strength or Extra Strength

Follow instructions for cleaning outdoor patios to clean your concrete driveway or apron. For larger stained areas, use a scrub brush on a pole. Be sure to run plenty of water when rinsing to avoid leaving residue of sodium percarbonate undiluted in nearby grass or garden areas.

Outdoor Decking

100. Wood Deck Stain Removal

Double Strength or Extra Strength

Brighten wood and remove mildew, algae, nail head stains and other blemishes on outdoor wood decks. Mix a solution of16 ounce for each gallon of hot water. Use one gallon of solution in a large bucket with a mop, long handled scrub brush (non metallic) or stiff broom. Apply the wet solution while scrubbing and let stand at least 15 minutes before rinsing thoroughly with running water.

101. Wood Deck Cleaning

Double Strength

For general cleaning of wood decks a solution of sodium percarbonate at double strength (8 ounces per gallon of water) is sufficient to handle regular cleaning. It is easiest to apply using a bucket and long handled brush or stiff broom. Rinse and let air dry.

Regular cleaning will help prevent the build up of algae and mildew, which can help prevent the onset of dry rot as well.

Vinyl Siding

102. Vinyl Siding General Cleaning

Double Strength or Extra Strength

Begin with a double strength (8 ounces to one gallon water) solution of sodium percarbonate in warm to hot water. Remove all loose debris before washing using a spray hose or brush attachment.

Use a long handled brush, sponge or sponge mop to apply the sodium percarbonate from the highest point across and then work your way down the siding. Rinse with running water.

103. Vinyl Siding Stain Removal

Double Strength or Extra Strength

Tough mildew, mold or tree sap staining on vinyl siding can be removed using a small amount of sodium percarbonate paste applied directly to the stain and spread thinly over it. Let stand at least one hour, then scrub and rinse. Extremely tough stains may require two applications.

104. Skunk Odor Removal Treatment Regular Strength

Perhaps the most amazing and potent use of hydrogen peroxide is as a skunk odor remover for dogs. While we have never actually used this remedy on a cat, (and have never had a cat sprayed by a skunk), chances are very good, if you could figure out how to get the cat to keep still for the treatment, that it would work equally well on cats as it does on dogs. Let's hope none of us ever has to find this out.

To treat a skunked dog, the first thing you'll need is some good latex or rubber gloves. You'll also want to put on your least favorite clothing. Some friends we know even wear a fish cutter's apron (one of those big yellow or white rubber coated things!) Depending on the size of the dog and the severity of the skunk encounter, you will have to make those decisions as you go.

The first thing to notice is how badly the dog has been sprayed. We have seen dogs who actually seem to love getting skunked, and in some cases the spray can be so heavy as to appear as a sticky clear coating on the dog's face, chest and head. Double yuck.

If this is the case, you will most likely need to apply the treatment twice: first to remove the actual physical skunk spray that is on the dog, and second to remove all residual odors.

For small dogs, mix 1 to 2 cups baking soda, a few drops of liquid dish detergent and 8 ounces of 3 percent hydrogen peroxide in a glass, plastic or ceramic container. A large bowl works best.

Continue to stir the mixture until it is a smooth consistent thick liquid. It will begin to settle and harden between stirrings, that's fine. Apply the mixture directly to the dog, starting where the spray is worst and working to the tail. Apply by stirring until liquid and then scooping one handful at a time and rubbing in to the dog's fur and skin. If the mixture gets too thick, simply add more hydrogen peroxide. If it gets too thin, add more baking soda.

Apply until you've coated the dog's fur from head to tail, being careful to keep out of the eyes. This will take you 5 to 10 minutes. The longer the paste is on the dog, the better the results. However, it is a tough job to keep a dog coated in baking soda and hydrogen peroxide for any length of time! They want to shake (don't let them, it will spray little droplets of baking soda mix all over the place!) Most dogs don't like baths, so depending on your dog's temperament this job could be easier or more difficult to accomplish. Once the dog is thoroughly coated, begin to rinse off the paste starting at the tail and working your way back to the head. This lets the paste stay on the head and chest area longest where it is most needed.

When the dog is completely rinsed, check to see if you need to repeat the process. Unless the dog has sustained a direct hit to the face and front body area leaving visible spray on the fur, one application is usually sufficient.

Note: Skunk spray is amazing stuff. It actually activates more strongly when in contact with moisture, so when you begin rinsing the dog you may suddenly smell the skunk odor again after the baking soda and hydrogen peroxide have already done most of their work. That's okay, just keep rinsing until you remove all the baking soda hydrogen peroxide mixture from the dogs fur.

From the moment you begin to apply the paste, the odor will become less unbearable, and by the time you are done with the "skunk odor bath" you will be greatly relieved.

The hardest thing about this treatment is that you actually have to bathe the dog… That is, you have to stand over this horrid smell up close and personal until the job is done. Don't torture yourself any more than necessary. Open nearby windows, do the bathing out of doors, or whatever it takes to relieve you of having to endure the up close experience of strong skunk odor.

This is absolutely the only method we have ever used in all our years of dog skunk encounters that actually works. In a funny confirmation of this fact, this actual skunk odor removal remedy was tested by the folks over at Myth Busters a couple of years back… and they too determined it to be the only genuine solution to skunk odor of the various methods they tried.

105. Litter Boxes

Regular Strength

Keep litter boxes fresh and clean with regular cleaning. Every six months or so, completely empty the litter box, removing all solid material and fill with hot water mixed with 2 to 3 ounces of sodium percarbonate. Let stand at least 30 minutes, preferably up to 5 hours.

After soaking, scrub clean, drain and rinse and set to dry. The sodium percarbonate is great for septic tanks, plumbing pipes and toilet bowls, so flushing it down the drain is no problem.

Between cleanings keep the litter box fresh by sprinkling a small amount of sodium percarbonate on the surface of the dry litter when changing the litter or adding fresh litter. If your litter box has a roof with a ventilation screen at the top (often with a charcoal filter "sponge" in it) you can sprinkle sodium percarbonate on the charcoal sponge as well.

106. Ear Mite Prevention/Cure

Regular Strength

Does your dog have ear mites? Some dogs seem to be prone to them no matter how well cared for they are. If you notice your dog shaking his/her head often, it is wise to check for ear mites.

Use one to three cotton balls pinched together and gently swab out the inside of the ear. If it is covered with brown "crumbs" or comes up with a brown wet surface on the cotton ball chances are good your dog has ear mites.

To solve the problem, get some fresh clean cotton balls and saturate them with 3 percent hydrogen peroxide. Now gently swab the ear again, massaging the

base of the ear while the cotton balls are in the ear. Remove, discard and repeat with clean dry cotton balls to remove the excess moisture. Regular applications of hydrogen peroxide to the ears will eliminate ear mites in dogs within weeks. Often one application is all it takes.

107. Wormer – Water Treatment

Regular Strength

Dogs can pick up worms just by walking around the neighborhood. They don't have shoes, and the most common worms can come in right through the pads of their feet.

The more dogs in the local area, the more likely yours are to pick up worms. Rather than spending lots of money on liquid wormers that the dogs simply refuse to take, throw up after you give them, or what have you, try adding a few drops of hydrogen peroxide to the water dish.

One teaspoon of 3 percent hydrogen peroxide per gallon of water every so often is a great defense against worms and infection for your dog. It is best to use this treatment sporadically, every few weeks or so, and not on an every day basis. Then add the hydrogen peroxide for several days running.

108. Emergency Dog Treatment for Poisoning

Regular Strength

Note: this emergency treatment should only be used when you know what the dog has ingested and that vomiting is the best solution for the problem. For example, if you know the dog has ingested rat poison, onions, or some other poison for which the best remedy is to get them to "toss their cookies" then this is the best and most expedient treatment. But if you do not know what they've eaten, or whether or not vomiting is the best solution, contact your vet before treating the dog. Some caustics, like bleach, or hydrogchemicals can actually do more damage if vomiting is induced than if they travel through the digestive system, so always check first if you are uncertain!

To induce vomiting in cases of poisoning in dogs: administer 2 to 3 teaspoons of 3 percent hydrogen peroxide orally for average size dogs (over 30 pounds) half that dose for small dogs. They won't like it, so you'll have to more or less pour it down their throats. Wait five minutes. If no vomiting ensues, repeat one time only. Vomiting should commence within five minutes so get the dog outside.

We've known of several dogs whose lives were saved with this treatment – most commonly animals who have eaten rat poison put out by farmers or

neighbors without consideration that a local dog could come upon the baited food as easily as a rat might. So the moral of this story might also be to avoid using any types of strong poisons around your home or farm. You might just accidentally poison your own pet!

109. Aquariums

Regular Strength

Hydrogen Peroxide is used in large commercial aquariums around the world for algae control, oxygenating the water and general cleaning.

Ratios of hydrogen peroxide to aquarium water are extremely precise, and need to be tested carefully or the marine life in the aquariums could be threatened by improper applications.

For home aquarium use, it is best to remove any fish or living creatures before you first test using hydrogen peroxide in the aquarium. Amounts to be used are generally less than 1 ounce 3 percent solution per 100 gallons to start.

For home aquarium cleaning when the tank will be drained and refreshed, use sodium percarbonate in a soak to remove dead algae growth and stubborn stains. Use a regular strength solution, scrub as needed and rinse well.

Never add even a 3 percent hydrogen peroxide solution directly to the aquarium as it can harm the fist at such concentration. Instead, dilute at least 64 to one before adding small amounts (less than 8 ounces at a time) to the water.

Specialized Uses

110. Wood Refinishing

Extra Strength

Want to strip that old dresser or bookcase and refinish it? The next time you need to strip some furniture, try using 35 percent hydrogen peroxide instead of toxic furniture finish strippers.

You will still need your rubber gloves because 35 percent hydrogen peroxide will burn your skin on direct contact, although it will do no permanent damage, it is quite uncomfortable. Should you accidentally spill some 35 percent hydrogen peroxide on your skin just flush with fast running water for at least 5 minutes. It may still sting a bit, and the skin may turn white temporarily.

You can apply the 35 percent hydrogen peroxide with a rag or by pouring it directly on the furniture surface and letting it sit as it begins to oxidize and loosen the old finish.

Use your scraper blade to remove the loosened finish. Repeat the process until you have removed most of the finish, and then wipe the surfaces dry. Once the wood surface is completely dry again, you can proceed to the sander to take off the last rough bits and get your furniture ready for its new finish.

If you don't have any 35 percent hydrogen peroxide, you can also use sodium percarbonate for this job. Simply add water to create a full strength paste of sodium percarbonate, and smear it over the furniture surface. Wait 15 minutes to an hour, testing occasionally to see if the finish is ready to be scraped off, then scrape off the old finish, rinse off any residual sodium percarbonate with a damp cloth or sponge, and wipe dry. Let the piece stand until it is completely dry before proceeding to sanding.

111. Carbon and Grease Buildup Stripping Double Strength or Extra Strength

To remove build up of carbon from barbeque grilling racks, soot stains on fireplace bricks or any place where cooking with fire or heating with fire has left soot and staining, make a paste of sodium percarbonate and hot water.

Apply the paste to the affected areas and let stand at least one hour. Scrub and rinse using hot water. For very stubborn carbon deposits you may need to soak the item overnight in a strong (12 to 16 ounces sodium percarbonate per gallon hot water) cleaning solution and then scrub and rinse.

112. Oil Rags, Work Clothes Presoak Double Strength or Extra Strength

See Laundry Heavily Soiled Items

113. Toxic Caustics and Chemicals Replacement Double Strength or Extra Strength

Toilet bowl cleaners, oven cleaners, degreasers and other chemicals used around the home can all contain extremely toxic caustic agents. Read the labels.

- Corrosives. Avoid products labeled "Danger. Corrosive." Corrosives include some of the most dangerous chemicals in the home, such as lye, hydrochloric acid, phosphoric acid, and sulfuric acid -- the active agents in many drain cleaners, oven cleaners, and toilet cleaners. These chemicals can burn the skin, cause internal burns if ingested, and explode if used incorrectly.

- Ammonia. Many home recipes and commercial products contain ammonia, but it is a strong eye and lung irritant and should particularly be avoided by anyone with asthma or other lung sensitivities.

- Bleach. For the reasons noted elsewhere, but primarily for its toxic fumes.

- Phosphates. Phosphates are naturally occurring minerals used in automatic dishwashing detergents as a water softener. When released back into the environment, phosphates can cause algae blooms in lakes and ponds that kill aquatic life. Look for phosphate-free dishwashing detergents, try a homemade recipe of half borax and half washing soda (a more alkaline form of baking soda), or skip the dishwasher and use a dishpan and regular dish soap instead.

- Petroleum products. Many surfactants (cleaning agents) are refined petroleum products that are linked with health problems and require environmentally harsh methods to extract and distill. A few specific ones to avoid: diethylene glycol, nonylphenol ethoxylate, and butyl cellosolve.

If you are in doubt about a particular product's safety, head on over to the Household Products Database from NIH and do a search for the product. You'll find their home page at: http://householdproducts.nlm.nih.gov/

Appendices

Appendix A: At A Glance: Basic Cleaning Product Replacement Guide

Ammonia General Household Cleaners, Spray Cleaners, Floor Cleaners	**3 percent regular strength hydrogen peroxide spray OR general cleaning solution of 1 oz. sodium percarbonate to one quart warm/hot water.**
Oven Cleaner	**Paste of sodium percarbonate and hot water applied for 10 to 30 minutes, then wipe and rinse clean.**
Bathroom Tile Grout Cleaner	**Sodium percarbonate paste mix, apply and let stand 15 minutes, scrub if necessary, rinse clean.**
Carpet Spot Stain Remover	**3 percent hydrogen peroxide spray solution, saturate, blot and repeat as needed.**
Carpet Deep Stain and Odor Removers	**Sodium percarbonate paste, apply, brush in, let stand 15 minutes. Rinse and blot clean. Or baking soda 3 percent solution paste applied the same way.**
Carpet Cleaning – General	**Add 1 ounce sodium percarbonate or 4 to 8 ounces 3 percent hydrogen peroxide to carpet shampooer tank.**
Kitchen Disinfection/Sterilization Cutting Boards, Counter Tops and Raw Food Handling Surfaces and Utensils	**Spray with 3 percent hydrogen peroxide followed by a spray of white vinegar. Wipe or rinse clean.**
Window Cleaner	**3 percent hydrogen peroxide solution in a spray bottle.**
Laundry Pre Soak	**1 to 3 ounces sodium percarbonate to 1 quart of hot water depending how soiled items to be pre soaked are.**
Fine Fabric Spot and Stain Removal	**Fine fabrics: 3 percent hydrogen peroxide solution spray (you can also use a Q-Tip to apply to small spot stains.**
Upholstery, General Fabric Spot and Stain Removers	**For deep stains use a 2-4 ounce/1 quart hot water solution of sodium percarbonate, brush or thoroughly saturate stain, let stand 30 minutes, rinse and blot clean. Check Color Fastness First!**

Cement Cleaners	**General Cleaning – 2 ounces sodium percarbonate 1 quart hot water, apply scrub and let stand 15 to 30 minutes, rinse thoroughly.**
Pre Wash for Indoor Painting	**3 percent hydrogen peroxide solution in spray and wipe clean to remove grease dirt and debris before painting.**

Appendix B: Cleaning Formulations and Home Cleaning Recipes

- **General Cleaning Solution:** 1 ounce sodium percarbonate to 1 quart hot water; 3 percent hydrogen peroxide in spray bottle

- **Odor Remover/General Deodorizer:** 1 to 2 cups baking soda; 8 to 10 ounces 3 percent hydrogen peroxide 3 to 6 drops liquid dish detergent. Mix well, mixture will thicken when left standing, stir to loosen and apply as wet paste.

- **Deep cleaning stain removal and scouring paste:** mix sodium percarbonate with only enough water to make a paste. Use 3 percent hydrogen peroxide spray directly on stains and spots.

- **Kitchen Disinfection/Sterilization:** Spray bottle of 3 percent hydrogen peroxide solution and spray bottle of acetic acid (white vinegar) use consecutively, the order is not important. Do not mix or combine spray bottles as hydrogen peroxide breaks down when exposed to vinegar.

Sodium Percarbonate Home Products Data Sheet; Manufacturers Uses List, Storage and Handling Instructions:

Household Products Data Sheet for Sodium Percarbonate Lists products containing sodium percarbonate as well as data on the chemical compound

http://householdproducts.nlm.nih.gov/cgi-bin/household/brands?tbl=chem&id=529

Sodium Percarbonate This product is a white particle powder, non-toxic no contamination, non-flammable, non-explosive, easy to get damp, and soluble in water. It is non-toxic, environmentally safe, biodegradable, and leaves no harmful by-products or residues that can harm the environment.

Excellent for cleaning and removing organic stains such as coffee, tea, wine, fruit juices, foods, sauces, grass, blood, urine or sweat from fabrics, plastics, fiberglass, porcelain, ceramics, wood, carpets, asphalt, concrete, etc.

A partial list of Sodium Percarbonate Cleaning Uses

Use it to Clean:

- Algae Stained Roofs, Siding and Wood Decks.
- Ceramic Tile Grout
- Food Stained Plastic Storage Containers, Formica stained counters

- Coffee and Iced Tea makers
- Any fabric: ink stains, oil, grease, chocolate, tomato sauce, grass, blood, mud
- Carpet Cleaner
- Mildew Stained Tents, Camping Gear, Coolers, etc.
- Septic System Enhancer helps keep the drain field soil loose so that it drains well.
- Boat Canvas, vinyl, rope, Teakwood
- Lawn Furniture
- Sanitize everything from Garbage Cans to baby diapers
- Pet Stains – Odors
- Use it to sanitize your swimming pool or hot tub
- Commercial Growers use it to clean and sterilize their pots, benches soil etc.
- Sterilize home brewing equipment.
- Virtually Anything that is Water Washable!

How Does it Work?

- Simply mix with warm water.
- Once dissolved, you soak articles in the solution or apply with a sprayer, mop or brush.
- Wood decks come clean in minutes. Many clothing stains disappear in several hours or after a simple overnight soaking! Scrub most articles lightly after the solution soaks and rinse with a hose or running water.

Appendix C: Important Information for Those Using Hydrogen Peroxide around the Home

1. Food Grade Hydrogen Peroxide at 35 Percent is caustic to your body.

In the event of ingestion of 35 percent hydrogen peroxide a person's life is in critical danger. Do NOT induce vomiting. Do NOT allow the person to lie down, become prone, or curl up in a ball. These are natural tendencies because the hydrogen peroxide will cause severe stomach discomfort. The person must remain upright. Standing or sitting upright with a clear open air passageway. Have the person drink plenty of plain room temperature water and remaining sitting or standing until the symptoms subside completely. There will be a lot of burping and expulsion of excess gas from the stomach along the way.

The reason you must not allow the person to lie down, become prone or curl up is that if the gas produced by the reactions in the stomach to the peroxide are not released they will rise into the lungs and suffocate the person. In recent years there have been only 2 deaths by ingestions of 35 percent food grade hydrogen peroxide I know of, and both occurred when the person did not remain upright. In constrast, I know of two cases where the person remained upright, drank plenty of water, burped like crazy, and within a few hours was completely fine with no long lasting ill effects whatever.

The only cases of ingestion I know of ALL occurred when the 35 percent peroxide was NOT LABELED was in "temporary containers" in one case it was actually in an old soda bottle! And the unsuspecting victim drank it thinking it was water. **LABEL. SEAL and KEEP SAFELY OUT OF REACH OF CHILDREN ALL 35 PERCENT SOLUTIONS OF H2O2!**

It is my personal opinion that in a home with children any 35 percent peroxide should be locked in a locking freezer. It will not freeze, will keep well, and will be safely out of harm's way. If you cannot do this, consider only keeping lower concentrations in the home until your children grow up. But remember, in ALL of the cases I know of, the people involved were over 16 years of age and were capable of reading, had there been labels to read**. LABEL IT and KEEP IT SAFE.**

As a comparison, the number of accidental poisonings each year in the U.S. attributed to household cleaners is in the thousands. **For a more in-depth look at the serious issues surrounding toxic household chemicals, take a look here: http://www.cleaningpro.com/toxic.cfm**

2. Adding 35 percent food grade hydrogen peroxide to drinking water is safe,

so long as you understand that it only takes a few drops for every 8 ounces of water to achieve desired results. In many parts of the world hydrogen peroxide is used for drinking water disinfection.

In fact, it is now the fastest growing bio hazard control product in a vapor application being used for life science, pharmaceutical and medical research facilities. But that doesn't mean you drink peroxide! It means you add 2 to 3 drops to a full glass of water,
We've been adding it by the droplet to our drinking water for years with no ill effects and it does seem to help us fend off colds and flu when others are coming down sick all around us. But this is a personal lifestyle choice, it is not the advice of a medical professional, and everyone must do their own research to determine what is best for themselves.

To that end, we highly recommend that you take the time to investigate the following sources of information about hydrogen peroxide:

ECHO

Dr. Majid Ali

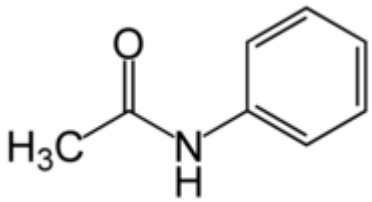
Appendix D: Hydrogen Peroxide Stabilizers in the Marketplace

Hydrogen peroxide is fairly stable in concentrations of up to 40 percent. It does, however, break down with exposure to water, sunlight, and over time, into water and oxygen. For this reason it is often used in high level aquatic applications to introduce additional oxygen to the water in large aquariums and closed system water environments.

However, hydrogen peroxide that is produced for the technical industry, as well as over the counter drug store hydrogen peroxide, is all treated with a number of possible stabilizing agents to retard dissociation of the hydrogen peroxide into its water and oxygen components. The most common stabilizing agents include "Acetamilide", "phenol", "tin", "Colloidal stannate", "sodium pyrophosphate" (present at 25 - 250 mg/L) and "organophosphonates", "nitrate".

Most of these stabilizing agents are toxic to humans. They are used in hydrogen peroxide stabilizing for specific applications, none of which include regular household cleaning, bathing, food preparation etc. For this reason it simply makes sense to avoid use of these grades of hydrogen peroxide around the home.

Let's have a look at an excerpt from Wikipedia regarding the use and applications of this "stabilizing agent" and see if you can figure out why any personal care, food related or in home cleaning application of hydrogen peroxide is better off without it!

Acetanilide	
	
Chemical name	N-phenylacetamide
Chemical formula	C_8H_9NO
Molecular mass	135.17 g/mol

Applications

Acetanilide is used as an inhibitor in hydrogen peroxide and is used to stabilize cellulose ester varnishes. It has also found uses in the intermediation

in rubber accelerator synthesis, dyes and dye intermediate synthesis, and camphor synthesis. Acetanilide was used as a precursor in penicillin synthesis and other pharmaceuticals and its intermediates.

Acetanilide has analgesic and fever-reducing properties; it is in the same class of drugs as acetaminophen or paracetamol. Under the name acetanilid it formerly figured in the formula of a number of patent medicines and over the counter drugs. In 1948, Julius Axelrod and Bernard Brodie discovered that acetanilide is much more toxic in these applications than other drugs, causing methemoglobinemia and ultimately doing damage to the liver and kidneys. As such, acetanilide has largely been replaced by less toxic drugs.

In the 19th century it was one of a large number of compounds used as experimental photographic developers.

Copyrights:

Appendix E: Replacing the Hazards in Your Home with Clean Non Toxic Non Polluting Hydrogen Peroxide

Most of us consider the effects of the products we use around our home very narrowly; in terms of their effectiveness at what we want them to do, or in terms of our over all perspective on such issues as the environment, our health and the health of our family members. We are now so well entrenched in the chemical revolution which began generations before us, to introduce chemical products into our daily lives that we barely notice how many chemicals we actually use on a daily basis.

However, we are also now beginning, in many areas of health and environmental science, to see the evidence that proliferation of chemical toxins into our homes and environments may not always be serving us.

In the last 20 to 30 years the evidence has been mounting that a large number of the chemicals we all considered "normal household chemicals" are, in fact, highly toxic, resistant to bio assimilation (meaning they persist in the environment after use) and become bio toxins in our bodies and environment over time. During their proliferation beginning after World War II and right up to today, the actual environmental and health consequences of many of these chemicals have remained unknown.

Any cursory investigation of the Household Products Data Base at the National Institutes of Health cross referenced with the Hazardous Materials Data Sheets of the Environmental Protection Agency will show that "unknown" is the most common entry in the areas of environmental and health risks of these chemicals. In fact, "insufficient research data" is the most common explanation of what the effects of these chemicals may be expected to be!

At the same time, we do know the effects of a great many chemicals, more research is being done all the time, and the results of the research that has been done are clear. Organochlorines, formaldehyde, hydrochloric acid, phosphoric acid, and sulfuric acid, phosphates, diethylene glycol, nonylphenol ethoxylate, and butyl cellosolve, and others are known toxins, which cause cancers, liver damage, reproductive disorders, immune system break down and more.

Starting with the first on the list, organochlorines make up a class of chemicals that are the result of chlorine interactions in the environment. This new class of man-made chemicals includes dioxin, and many others.

Some 177 different organochlorines have been found in fat, breast milk, blood, semen and breath in people of the U.S and Canada.

Because organochlorines persist in body fat and in the environment, they concentrate at higher levels the higher up the food chain you go.

- Some organochlorines (vinyl chloride and dichloromethane) cause mutations in genetic material, which can then give the wrong instructions to the rest of the cell for cell division, differentiation and proliferation;
- Some organochlorines (dioxin, chlorobenzenes, chlorinated pesticides, and chlorinated solvents) strengthen the ability of other chemicals to cause cancer by inducing enzymes that transform them into a more carcinogenic form;
- organochlorines such as dioxin and PCBs interfere with the body's natural controls on cell growth and differentiation;
- Some Organochlorines mimic or interfere with natural hormones like estrogen;
- Organochlorines, namely the dioxins and the solvent trichloroethan, may suppress the immune system's mechanisms for defending against tumorous cells.

Chlorine Exposure and its effects

Breathing bleach fumes, soaking in a chlorinated Jacuzzi or taking a hot shower in unfiltered chlorinated water all provide the potential for direct exposure to chlorine in a heated environment, The addition of heat to the equation causes the over exposure and added absorption of chlorine by the body.

This exposure causes two changes that affect this condition. The first effect is a CNS motor neuron-proprioception disorder whereby muscle control is disturbed, leading to differences in right and left sides or changes in antagonistic muscle function. These imbalances then translate to joints and discs, causing articular subluxations or disc shearing, with resultant nerve pressure and entrapment.

The other deleterious effect of chlorine and its chemical breakdown products is that it deranges collagen structure, changing a linear structure to a web type, circular structure, like ringworm. The structure takes on the form of microscopic scar tissue. This leads to restricted motion, from myofibrositis. Eventually, the breakdown of collagen takes place in the cartilage and other connective tissues. When the support mechanism is disrupted, structural failure results, the most common of which are low back pain and sciatica.

This exposure can be prevented by eliminating household and clothes cleaning compounds containing chlorine, changing chlorinated Jacuzzi's to hydrogen peroxide sterilizing combined with ozone filtration or UV treatments and adding chlorine filtering to the household water supply, either at the point of exit (showerheads, faucet filters) or through a whole-house filtering system.

Finally, a clearer understanding of dioxin and other organochlorines makes it clear that while chlorine may break down into harmless salts and water in a sterile laboratory environment, in the natural environment, it does something very different than that.
Definition of dioxin from the EPA safe water drinking water hazards list includes the following:

"What is dioxin and how is it used?"

"Dioxin is not manufactured for any commercial uses. Rather, it is a chemical byproduct of the manufacturing of chlorine bleached paper"

The report goes on to state that "dioxin is believed to be the single most carcinogenic chemical known to science".

The U.S. Environmental Protection Agency has found dioxin to be 300,000 times more potent as a carcinogen than DDT.

In other research, scientists are beginning to assess how it is that these organochlorines make their way into human tissues.

Chlorine and its organochlorines by-products are readily absorbed by the skin. Dioxins present in bleached paper products such as coffee filters, paper towels, diapers, tissues and other products used directly on the skin may be one of the avenues by which some of the 177 known organochlorines make their way into human tissue.

It is now reported that the average American ingests a daily amount of dioxin that is already 300 to 600 times greater than the EPA's "safe" dose.

The Newest Line Of Antibacterial Soaps and Why We May Want to Avoid Them

Growing evidence that a new breed of antibacterial soaps and cleaners are now having deleterious effects on North American agriculture and natural environments further suggests that we would do well to eliminate these "super soaps" from our households as well.

Why replace antibacterial soaps? Consider this excerpt from a May 2006 Los Angeles Times article:

"Tons of chemicals in antibacterial soaps used in the bathrooms and kitchens of virtually every home are being released into the environment, yet no government agency is monitoring or regulating them in water supplies or food.

About 75% of a potent bacteria-killing chemical that people flush down their drains survives treatment at sewage plants, and **most of that ends up in sludge spread on farm fields**, according to Johns Hopkins University research. Every year, it says, **an estimated 200 tons of two compounds — triclocarban and triclosan — are applied to agricultural lands nationwide.**

The findings, in a study published last week in Environmental Science & Technology, add to the growing concerns of many scientists that the Environmental Protection Agency needs to address thousands of pharmaceuticals and consumer product chemicals that wind up in the environment when they are flushed into sewers.

From dishwashing soaps to cutting boards, about 1,500 new antibacterial consumer products containing the two chemicals have been introduced into the marketplace since 2000. Some experts worry that widespread use of such products may be helping to turn some dangerous germs into "superbugs" resistant to antibiotics."

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For many of us, the idea of thinking more globally about what we are doing locally is still a new idea. However, thinking simply of our children, and their children, it seems a natural response to want to follow a path of action that provides the greatest benefit and least potential harm to the environment we will leave to them.

Switching to simple hydrogen peroxide for household disinfecting, and general purpose cleaning is an easy, effective and environmentally sound solution.

Appendix F: Resources

Buying Food Grade H_2O_2 at 8%, 9%, 12% and even 35%

Food grade H_2O_2 one 1-pint bottle (16oz.)

Food grade H_2O_2, one case of nine 1-pint bottles

If the above listings are no longer active, simply do a Google search for "food grade hydrogen peroxide" and you will quickly locate seller(s). Then, just compare prices, shipping terms, etc.

Hydrogen Peroxide Science Related Resources:

- **NSF (National Science Foundation)**
- **ESA/International Hydrogen Peroxide Propulsion Conference**
- **Scitation.org Digital Science Documents**
- **Pure Energy Systems Wiki – Community-built energy information site**
- **Chinese Showcase Eco-friendly Cars**
- **Dr. Majid Ali's Aging Healthfully Virtual Library - Dr. Majid Ali- Integrative Medicine Editor of Integrative Medicine Journal**
- **The Many Benefits Of Hydrogen Peroxide - Article**